BULLETIN

MADRAS DEVELOPMENT SEMINAR SERIES

VOLUME III NUMBER 10 OCTOBER 1973

74, SECOND MAIN ROAD, GANDHINAGAR,

ADYAR, MADRAS-20.

MONTHLY BULLETIN

Vol. III No. 10

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EDITORIAL—SOME HIGHLIGHTS

I. General Economic Scene

State

Fifth Plan: The State governmen cabinet reviewed in late August the State Fifth Plan as it emerged from detailed examination and formulation of projects under each sector. The plan as approved by the cabinet involves a total outlay of Rs. 1532 crores, which is over Rs. 200 crores above that recommended by the State Planning Commission (see Vol. III page 547 of the Bulletin) and was the subject of discussion and review by the Union Planning Commission and Officers of the State government on August 30 and 31 between the Deputy Chairman of the Union Commission and the Chairman of the State Planning Commission on September 5th.

The State Fifth Plan defines as its major goals (a) doubling the State's per capita income reckoned at constant prices, (b) removal of poverty and social and economic inequality, (c) elimination of unemployment and reduction of under-employment and (d) modernisation of the State's social and economic structure—which is a summary of the objectives of the State Perspective Plan Frame. It recognises the necessity of planning from below for which 23 district plans have been formulated and proposes to finalise the district plans, integrated with the State and National Fifth Plan once the Fifth Plan resources are known. Economic growth in terms of doubling per capita income is recognised as a necessary but not sufficient indicator of development. Removal of poverty through a multifaced programme of transfer of lands to the landless, and ownership rights to cultivating tenants, Rs. 91.56 crores in welfare of the backward classes and Rs. 302.52 crores for the minimum needs programme, broken down into elementary education (Rs. 34.69 crores), nutrition (Rs. 57.14 crores), rural water supply (Rs. 40 crores), rural roads (Rs. 55 crores), Health (Rs. 21.69 crores), house sites for landless workers (Rs. 9 crores), slum clearance and improvement (Rs. 35 crores), and rural electrification (Rs. 50 crores). This minimum needs programme which will also increase employment, aims at (a) providing an all weather link road to every habitation of 1,500 persons and above, (b) launching a massive programme of water supply, (c) enrolling 100 per cent of the age group 6-11 and 60 per cent in the age group 11-14, (d) covering 40 per cent of rural people with electric supply, (e) establishing a primary health centre for every Panchayat Union and a sub-centre for every 10,000 people and (f) providing house sites for landless workers and legalising the occupation of house sites by tenants and improving slum conditions in urban centres with a population of 8 lakhs and above. Food production is targeted at 90.50 lakh tonnes including 67 lakh tonnes of rice, 20 lakh tonnes of millets and 3.50 lakh tonnes of pulses (the 1973-74 production being 57, 15 and 2 lakh tonnes). Sugar cane will be increased from 11 to 14 lakh tonnes, cotton from 0.72 to 0.9 lakh tonnes and oil seeds from 11.5 to 15.16 lakh

tonnes. This programme will involve co-operative credit to farmers of Rs. 105 crores short term, and medium term and Rs. 34 crores long term by the end of the Plan. Fertiliser availability will be increased; N from 3.25 lakh tonnes to 5 lakh tonnes, and P and K from 1 lakh tonnes to 2 lakh tonnes each. Irrigation work will complete the Vaigai and Thambaraparani projects, and construct 10,000 filter points, 12,500 tube wells, 4,000 bore wells, deepen 10,000 open wells, repair and improve 27,000 tanks, survey ground water, etc., all at a total cost of Rs. 188.02 crores. Power is given the highest priority with all the projects to be referred to later under the section on Power in order to increase generation by 825 MW at a cost of Rs. 331 crores and Rs. 90 crores to reduce transmission losses. The industrialisation programme will involve a sponge iron plant at Arakonam, machine tools, expansion of cement, CONCAST and SPIC, intensification of the activities of TIDCO, SIDCO and SIPCOT and reservation of certain textiles and yarn for the handloom sector. The education sector will launch an out-of-school programme for drop-outs, full time craft instructors to all schools, an Institute of Research and Training and the Technological University. In health there will be 30 beds for every 4 PHCs, upgrading existing government hospitals and setting up specialities in every district headquarters hospital. Rs. 100 crores is proposed for the Madras Metropolitan Plan. In summary, the Fifth Plan presented to Union Planning Commission of Rs. 1,531.88 crores including the Draft Annual Plan for the first year of Rs. 201.95 crores is as follows :

		Fourth Plan likely actuals	*Draft Fifth Plan*	*Draft Annual Plan 1974-75*
			(Rupees in Crores)	
Agriculture and allied programmes excluding Minor Irrigation	...	57.74	108.09	19.83
Co-operation	...	8.14	19.23	3.16
Community/Rural Development	...	10.64	64.77	5.80
Irrigation including Minor Irrigation	...	65.36	188.02	20.92
Power	...	197.25	446.20	50.53
Industries	...	37.12	107.09	12.23
Roads	...	22.69	101.18	11.00
Other Transport Facilities	...	8.06	25.21	3.67
Education, Technical Education and Cultural Programmes	...	48.70	116.82	13.60
Health and Family Planning	...	15.33	60.58	7.11
Water-Supply and Sanitation	...	32.29	108.87	20.00
Nutrition	...	0.54	21.00	2.50
Welfare of Backward Classes	...	19.19	23.99	3.41
Others	...	35.14	140.83	28.19
Total		557.59	1,531.88	201.95

The case for the Rs. 1,531.88 crores plan rests on three dimensions (a) the needs of the State which as summarised means a doubling of the Fourth Plan at constant prices which involves Rs. 1,500—1,600 crores; (b) the feasible tempo of implementation. The implementation in terms of outlay has increased by 20 per cent per annum in the Fourth Plan. On this basis the 1974-75 annual plan must be Rs. 200 crores, the mid-year of the Plan Rs. 300 crores and the Plan as a whole Rs. 1,500 crores. Using the State Planning Commission's capital output ratio and its total Fifth Plan programme of Rs. 3,900, if the centrally sponsored projects of the Commission are included in the State sector, the outlay increases from Rs. 1,300 crores to Rs. 1,500 crores: and (c) the resources available. The total resources exclusive of the State's and State's share of Central additional mobilisation comes to Rs. 1,488 crores on the assumption of the minimum needs programme will be financed by the Union Government, the Central assistance being double of the Fourth Plan assistance of Rs. 500 crores and Rs. 100 crores special aid for metropolitan development is provided. The Plan hopes that the slow down of the Central projects in the State during the Fourth Plan will be corrected and lists 14 Central projects for the Fifth Plan, (a) second mine cut at Neyveli and a 1,000 MW thermal station, (b) development of Cuddalore and its harbour, (c) Salem Steel Plant intensification, (d) expansion of Kalpakkam, (e) another nuclear plant at Tuticorin; (f) oil exploration in the Cauvery basin and off the coast; (g) conversion of Madras-Trichy-Madurai-Tuticorin into broadgauge; (h) a new broad gauge between Karur and Dindigul; (i) a mass transit system in Madras, (j) Sethusamudram project, (k) shipyard at Tuticorin, (l) industrial refinery at Tuticorin, (m) a fertiliser plant in the Cauvery delta and (n) establishment of defence industries. The Plan asks for a radical change in the inflationary policy caused by monetary and credit policies and licensing and import policies and ask for a prices income, profits and taxes policy under which price stability and lowering of taxes on essential commodities will increase the incentives of the people to save and invest. In the preface to the Plan, the Chairman of the State Planning Commission also proposes a National Conference of State Government to discuss the economic crisis of the Country and decide on alternative courses of action.

The result of the discussion of the Plan with the Union Planning Commission at both the official and ministerial levels is that the priorities have been agreed upon, the sectoral allocation fixed and a total plan of Rs. 1,200 crores will be finally drafted as the State Fifth Plan.

Perspective Plan: The State Planning Commission is proceeding with the work on the Perspective Plan. The projections on institution and institutional changes are being undertaken by working groups on land policy, management of public and private sectors and prices, incomes and wage policy. The working group on resources is completing its report. The two working groups on Industrial R & D and Housing R & D completed their reports by the end of August and the draft report on the Science and Technology Perspective Plan for Tamil Nadu has been presented to the Science and Technology Committee of the State Planning Commission for finalisation by the end of September. The study on the development of the backward regions of the State is also complete. Now the task is to bring together all this material and draft the Perspective Plan for the State.

State Loans and Finances: In early August, 20 State governments announced

their loans programme of Rs. 149.75 crores for 1973-74 against Rs. 133 crores for the past year. Tamil Nadu's Loan of Rs. 11.75 crores has conditions similar to those of other State loans—a twelve year period of maturity and a 5 3/4 rate of interest per annum. These have been the terms of the past 4 years and do not reflect the monetary policy instituted in June (see pages 479, 480, 560 and 561 of Vol. III of the Bulletin). By the end of August the loans were subscribed Tamil Nadu's loans subscription amounts to Rs. 13.03 crores. As there are no maturing liabilities this year, unlike Rs. 10.44 crores for 1972, the whole of the loan is a net addition to the State's resources. The State's long term financial position resulting from the reintroduction of full prohibition next year will call for either a long term soft loan from the Union government and/or appropriate financial compensation that the sixth Finance Commission should take into consideration in its recommendations. As part of the resource mobilisation effort and for wider sound economic reasons the State legislature adopted unanimously a resolution at its August session requesting the Union government to implement the Wanchoo Committee recommendations to unearth black money. It also has offered to do its share in this difficult matter if the Union government decentralized some of its powers in this regard to the States. It is necessary that all States mobilise legislative and public opinion to eliminate the parallel economy that has developed and mobilise these large unaccounted resources not only to add to the resources of the government but also to increase the total of investible resources in the Country. The further proposal to levy an expenditure tax as a means of combatting black money is primarily a fiscal measure and will face the same problem of evasions as the present income and wealth taxes face. The Wanchoo Committee recommendations are a sound starting point to bring out into the open and legitimising these resources.

Consumers' Status : Consumers at all levels—the rich, the middle classes and the poor--in the State have not faced as serious a squeeze as those in some other States such as Maharashtra, Bengal or even Delhi. In terms of prices they have been less worse off than the consumers elsewhere. The wholesale prices of pulses began falling from mid August. Rice prices have remained stable and the State has been able to supply 3000 tonnes for the Onam festival to Kerala and promise an annual gift of 15,000 tonnes. Edible oil prices which have risen by 50 per cent are also beginning to decline with the easing of the pressure in supply of oil seeds from the North where a good crop is assured. It is the lower middle classes and the fixed salaried groups who have faced a period of austerity as their consumption budget increased by 25 to 30 per cent. The government reduced from August the sales tax on wheat in order to help reduce the prices at which wheat and wheat products are available to the consumers. From the same date, the government has established a control order requiring a declaration of stocks and regulation of movement in the case of cement, diesel engines, dyes and chemicals, kerosene lamps and yarn. All stocks of these articles in excess of approved quantities have to be declared to the government and their transport above a certain amount from one place to another requires a permit. The prices of these articles have thus been stabilised. On August 28th the government announced the total exemption from sales tax at 2 points amounting to 7 per cent of all varieties of pulses and the partial exemption (at one of the 2 points of 3.5 per cent each) of groundnut oil for an initial period of two months. The immediate effect was a 4 per cent fall in the price of pulses (the other 3 per cent reduction will take place

on new stocks as the tax at the first point had already been paid) and the price of groundnut oil fell by 30 paise. On the same day, the Essential Commodities order under DIR was issued requiring every dealer to exhibit cost and selling prices of essential articles and their stocks. The cost price is defined as the price at which the commodity is purchased by the dealer inclusive of sales tax, freight and storage charges. The sale price is defined as the price at which the commodity is sold by the dealer exclusive of sales tax. The essential commodities are defined as: paddy and rice, all coarse grains like Cholam, Cumbu, ragi, maize, wheat, flour, all pulses and grams, all edible oils, baby food, tamarind, chillies, fire wood, charcoal, leco and kerosene. Government officers are checking and enforcing the order and the prices of essentials are as a consequence stabilised or declining. The Union Government's decision of selective increases from August 22nd in the prices of petroleum products including petrol, grease, lubricants and naphtha have resulted in an increase of petrol prices from Rs. 1.56 per litre to Rs. 1.66 per litre and parallel increases in the other products. The purpose of this increase was to decrease consumption of motor spirit which will reduce the import of naphtha and curb the consumption of lubricants and so soften the rising foreign exchange costs. These end purposes are unlikely to be achieved because the demand for petrol by the small group—official and non official—which uses it is inelastic and the consumption of lubricants which as a percentage of fuel consumption is highest in the world is the result of the poor servicing conditions for machines. The result of this price increase will be to increase industrial costs. But what really affects the consumers in the State even more than the price rise is the declining quality of the products, the various forms of growing adulteration and the poor distribution system. The disappearance of the popular brands of baby foods from the druggists' and chemists' shops where they sell at Rs. 14 per kg. and their being sold in general traders' and grocers' shops for Rs.22 per kg. is a case in point. Here the distribution system is at fault. The baby foods are supplied in small quantities to the druggists but the general traders are able to buy it in bulk along with slow moving non-essential items and sell the former at the high prices quoted. Even more than the grocers, with the seasonal short supply of milk products, the middlemen buy up the supplies in the open market and sell at much higher prices. Here the State's Civil Supplies Commissioner has launched a scheme under which a list of the retailers has been established and actual supplies are made to them. In return the retailers are required to display particulars of stocks, quota received, and the prices. They are also required to register the names and particulars of the consumers along with evidence of babies. Along with a stiff verification system, the 22 lakhs of urban households will be covered by the scheme during the next 3 months when only 50 per cent of the required 25,000 cases of 12 kg. each will be available. This kind of distribution scheme should be introduced for all essential commodities when they are in short supply. The issues of quality and adulteration can be dealt with not only by a system of governmental checks and penalties but also by the business community developing a consumer orientation outlook. The market economy criterion of saleability, that is whatever the whole-saler and the retailer can pass off to the consumer, is inapplicable in our economy which is a closed one, with perennial shortages and inelastic demand. The three seminars on marketing and prices in the State in August have emphasised the point that there is no conflict between profit optimi-

sation and consumers interests, that the link between cost and prices is complex and that cost reduction programmes are as essential as enlarged sales and marketing. In fact the growing State control and take over of the market is a result of the business community not realising that it is in its interest to serve the customer, reduce costs and prices, improve quality in a market which in the State and Country will always be a seller's market.

Power : The July 31 fire at the Ennore station which burned the fourth transformer—the new 110 M W thermal set—(see Vol III page 468 of the Bulletin) has serious consequences for the power supply situation in the State. Not only is the loss heavy at Rs. 30 lakhs, the Bharat Heavy Electricals, Bhopal who are ordering the spares to repair the transformer cannot assure an early functioning of the unit. The psychological damage is equally heavy and the engineers are checking and overhauling the remaining transformers to avoid a similar calamity to the other units. This has meant that out of a total of 340 M W that Ennore is expected to generate, only 60 MW was being generated in August. The Mahalingam committee with the assistance of Tata consultants and Neyveli's chief engineer is finalising its report on the causes of the accident and the measures to recommission the damaged unit and ensure efficient working of all units. Meanwhile Neyveli is feeding 200 MW to the State grid, and there is an overdrawing on our hydel resources to make up for the Ennore thermal shortfall. Against a storage capacity of 2400 million units, at the end of August the storage position was 1800 million units. The Ennore deficit has meant that the State Electricity Board is not able to conserve the hydel resources as it had planned. This gave rise to the Board's warning that at the August end level of hydel and thermal resources and consumption there may have to be a 10 per cent power cut from October to July. If there is industrial expansion and further energisation of pump sets the cut may even have to be of the order of 40 per cent. It is good, that the Board this year is discussing the power position openly and fully with the industrialists and the public. There is need for care and planning in the use and extension of power connections. The rains at the beginning of September may improve further the hydel storage position. The Ennore plant should be rapidly put into full operation. The possibility of buying power from Kerala should be fully explored and a firm reciprocal agreement entered into. By mid September there should be a further review and decision on this matter. Probably a small cut from September throughout the year can meet the situation as new industrial connections for the small sector and some industries and agricultural connections will have to be given. The legislature at its August session received a report on the power projects currently under construction, to most of which reference was made in the 1972 review (see Vol. II No. 10 pages 6-7 of the Bulletin). The 10 projects involve generating a total capacity of 1500 MW and are being in part financed from the current year's budget; (a) The 600 MW Tuticorin thermal scheme at a cost of Rs. 73 crores will have its first 200 MW set commissioned in 1977-78 and the second set the following year. Last year's budget provided Rs. 4 crores and this year's Rs. 1 crore for this and the Mettur Dam thermal scheme; (b) the Mettur Dam thermal scheme will generate 330 MW through 3 sets of 110 MW at a total cost of Rs. 65.53 crores and is before CWPC for final clearance. It is essential that the scheme be cleared without further delay as advance payments for generators and boilers have been made for both the Tuticorin and Mettur schemes and the

State's power position is still precarious; (c) the Maduvattam diversion to augment by 69 million units the generation of Pykara and Moyar at a cost of Rs. 165 lakhs; (d) the Cholatipusha hydro-electric scheme with the agreement of Kerala which will generate 60 MW at a cost of Rs. 739 lakhs; (e) the Kadamparai hydro electric scheme which will use four 100 MW reversible pump turbine generators and one reservoir with a forebay dam; (f) the Seryalar power house for 30 MW; (g) the Nellithorai scheme to generate 50 MW: (h) the Paralayar Hydro electric Scheme for 30 MW: (i) the Suruliyar scheme for 30 MW. In addition the Mysore government is once more considering the joint investigation of the Hogenekal hydel project with this State. This project has become a delicate political issue in Mysore. The feasibility of the power project giving priority to the irrigation interests of Mysore, is the next step that the two States should undertake. The power situation in both the States demands such an approach. For the Ennore thermal station, the State government has decided to purchase a dredger at a cost Rs. 50 lakhs in order to deal with the problem of sandbars which choke the flow of water from the sea for cooling purposes. The temporary use of sand pumps will be replaced by the dredger clearing the sand bars and so enable full use of the generating units. For stage IV of the Kundah Hydro-Electric project the Canadian government has provided a loan of Rs. 2.78 crores and a grant of Rs. 0.84 crores for the 2 generating sets, equipment spares, services and installation and commissioning charges. Stage IV of Kundah can now therefore be rapidly completed. In relation to the take over of private electric companies, the Assembly adopted legislation in August on the basis of the recommendations of the joint select committee for a phased take over of the undertakings in accordance with the resources available to the government and the usual time period involved in having the courts rule on the validity of the legislation on compensation to the companies that are taken over. The companies can choose between two systems of compensation either an amount equal to 12 times the average annual net profit of the undertaking during a period of any five account years within the last 7 years or the book value of all completed work in use. The employees of the undertaking on take over will become employees of the State Electricity Board. In time therefore the State will have a unified power distribution system. It will be necessary under such a system for the engineers and technicians to be given continuous training and retraining to keep the system working at an optimum level.

For the Country the power situation has returned to normal as a result of the good monsoon except for some pockets in UP and Bihar which have had less than the normal rainfall. Disagreement and strikes by power engineers in Punjab, UP, Bihar and Delhi however led to serious interruptions in power supply throughout August. Delhi has in particular suffered from interrupted power supplies affecting several industries, water supply, news papers, teleprinters which were continuously affected by load shedding. Looking at the current Year's work and the Fourth Plan as a whole, the Minister of power and irrigation stated on August 8 in the Rajya Sabha that against the fourth plan target of 9.2 million KW the first four years achieved 3.8 million KW and by the end of the plan period this year the total additional generation will be 5.8 million K.W. This is a 3 million K.W. shortfall against the 3 million K.W. forecast last month (see Vol III page 550 of the Bulletin). In this situation of power scarcity the power cut this year has had disastrous consequences on industrial production during the first quarter of 1973. According to government estimates,

medium and large industries such as fertilisers, caustic soda, calcium carbide, PVC, industrial gases reduced their production by 40-75 percent; ferrous and non-ferrous metal, commercial vechicles and cement by 20–40 percent : automobile ancillaries, cables, newsprint, passenger cars, grinding wheels, pesticides cut back their outputs by 10-20 per cent. Drugs and pharmaceuticals clustered around Bombay which did not have a serious power shortage, industrial machinery, electrical goods, plastics, glass and ceramics maintained their production targets. Steel is one of the industries which has suffered heavily as the August issue of the Bulletin emphasised (see Vol. III page 484). Due to power shortage, steel production in the first quarter of 1973-74 fell by 14.6 per cent and the production of saleable steel in the following manner :

	April–June 1973	April–June 1972
	(in thousand tonnes)	
Bhilai	370.8	391.1
Durgapur	90.0	102.4
Rourkela	161.4	133.4
IISCO	80.8	66.5
TISCO	256.8	325.0
Total	959.8	1018.4

In view of the multiplier effect of any decline in steel production, the Union Planning Commission has approved the setting up of captive power units for all the steel plants so that they will be insulated from any further power shortage. Coking coal mines and coal washeries were also seriously affected by the power shortage and DVC and State Electricity Boards have been requested to give them high priority to avoid future reductions. Meanwhile the planning of power projects and even more their execution is still in an unsatisfactory state. The difference in the calculation of shortfalls, the reasons for the delay in the execution of projects, the additional capacity needed for the Fifth Plan are still the subject of continuing differences between the Union Planning Commission, the Union ministries, the State Electricity Boards and the user industries. It is for the Union Planning Commission to bring all the interests involved together and work out a perspective power plan, divided into phases and so help to ensure its prompt and speedy execution.

Siruvani Water : On August 19 a 99 year agreement for the supply of 1300 mc. ft. of Siruvani water by Kerala for the supply of drinking water to 3.25 lakhs people in Coimbatore and its neighbourhood was signed by the Kerala and Tamil Nadu governments. The project involves construction of a dam across the Siruvani river in Kerala by the Kerala government, with construction and maintenance costs amounting to Rs. 8 crores being provided by the Tamil Nadu government. On August 28 the two chief ministers inaugurated the project work which will be completed by 1977. On this basis the remaining issues, namely, the supply of Siruvani water for the development of Attapady valley in Kerala, the Pandiyar-

Punnapuzha river waters and the other west flowing water courses should be settled between the two governments. The Siruvani agreement was dealt with as a drinking water issue—a human and urgent issue-similar to the need for Tamil Nadu to meet the rice shortage situation faced by Kerala. Now the larger power and water development issues can be discussed and settled in the same spirit of mutual accommodation.

Land Reforms: Further to the Tenancy Act analysed in Vol. III pages 318 & 473 of the Bulletin, the legislature in August approved amendments to the land reform (Disposal of Surplus land) Rules 1965 under which the priority claimants to land rendered surplus under the ceiling law are defined. (see Vol. II No. 9 pages 3 and 4 of the Bulletin) Under the new rules the first preference is to the cultivating tenant dispossessed of the land declared as surplus, followed second by the farmer completely dispossessed of his holding, thirdly those whose holdings are reduced to less than 3 standard acres as a result of the Act. In this category, scheduled caste and scheduled tribe landless labourers and ex-servicemen get preference. It is necessary now to bring together all the separate pieces of land reform legislation in the State in a comprehensive act. One reason why this is not being done is the inordinate delay on the part of the Union government in recommending approval of the legislation by the President. This has happened to the Tamil Nadu cultivating Tenants Protection and Payment of the Fair Rent Bill (Extension to Kanyakumari) and so the legislative Assembly passed the Holdings Bill extending the life of the stay of Execution of Proceedings Act for Kanyakumari for 2 years as it was due to expire on September 24 and the President's assent to the New Bill has not yet been received. There is little excuse for this kind of delay in the implementation of urgently needed agrarian reform and development.

Farm Wages: The committee for the revision of minimum wages of agricultural labourers referred to in Vol II No 10 p 5 of the Bulletin has recommended the following wages as compared to those fixed in 1959 given in brackets.

(a) Ploughing with worker's own bulls per day of 5 hours — Rs. 5·50

(b) Ploughing without worker's bulls — Rs. 3 (Rs. 1.25)

(c) Sowing, transplanting and weeding per day of 7 hours

Men	Rs. 3	(Re. 1)
Women	Rs. 1·75	(Re. 0.85)
Non-adults	Rs. 1.75	(Re. 0.62)

(d) Harvesting and reaping—

Men	Rs. 3·25
Women	Rs. 2·25
Non-adults	Rs. 1·50

(e) Raising of livestock, Beekeeping, transport of farm produce and other operations —

Adults	Rs. 3	(Rs. 1.25)
Non adults	Rs. 1·75	(Re. 0·75)

These wages are for districts other than East Thanjavur and West Thanjavur for which the Act passed last year by the legislative Assembly applies (see Vol. II No 10 page 4 of the Bulletin). The government has now these recommendations under consideration and they are likely to be accepted in toto. When that is done, there will be some rise in living levels of the rural peoples.

Housing: The legislative Assembly in August passed the Slum Areas Bill which

increases the government's powers to acquire land for Slum Clearance or improvements. It vests the government with power to acquire land for Slum improvement schemes from anywhere and not only from the slum area or land adjacent to it. This will enable the government to plan rationally the rehabilitation of slum dwellers. The law also affords the rehabilitated slum occupant the same protection from eviction as is afforded to tenants. The government have also increased the ceiling for loans granted to its employees for house construction and purchases. For the construction of a house, the loan ceiling has been raised from Rs. 55,000 to Rs. 70,000 and for purchase of a house from Rs. 47,000 to Rs. 60,000 ; the period for the payment has been increased from 15 to 20 years. Similarly the loan for building additional rooms has been raised from Rs. 15,000 to Rs. 20,000. There should be a spurt to building houses in the State as a result of these liberalised provision.

Welfare Measures: Further to the toddy tappers' employment problem referred to in the last issue of the Bulletin (Vol. III page 556), the government has approved a Rs. 40.6 lakh scheme to rehabilitate 20,000 of the tappers. Each tapper will be given a loan of Rs. 200 of which Rs. 50 is for purchase of tools and the balance for lease of palmyrah or coconaut trees to produce neera, palmgur and jaggery. The State government will assume 25 percent and the All India Khadi Commission 75 percent of the cost of the scheme. This is a good start at reorienting workers from one trade to another. An equal number will have to be rehabilitated in the next round. The government is also planning to constitute a Panchayat Union Finance Corporation to use the surplus funds of some Panchayat Unions to help the weak ones. This would meet the problem of the Unions who are not able to provide the basic amenities such as village roads, drinking water and school buildings.

Railways, Roads and Air Services : The locomen's strike in August disrupted railway services in the State and the Country. What was even more serious was that the coal supplies for the railways, for thermal stations and for industries like cement and bricks were exhausted and there was serious interruption in production and services. This particular disruption was caused by inter-Union disputes among locomen. It is to be hoped that these inter-Union relations are now satisfactorily established and future disruptions can be avoided. Meanwhile the electrification of the railway services is proceeding as planned. A Rs. 8 crore project for the electrification of Madras-Tiruvellore railway line has been approved and work has started on the project. It will cut down the time of travel by 50 per cent. Similarly work on the electrification of the Madras-Vijayawada line has started in 3 sections Madras-Gudur, Gudur-Ongole, and Ongole-Vijayawada. This will be a commercially viable and production promotion operation. Tamil Nadu roads were discussed at the annual meeting of the Indian Roads and Transport Development Association in Madras in August. The State government has announced that it will rationalise the check posts on the roads to permit a smooth and rapid flow of commercial traffic. With the increasing tourist traffic now computed at 4,00,000 a year and increasing to 8,00,000 by 1978, the need for good and comfortable road transports is indicated. The development of the air services in the State has received a setback with the decision to defer the construction of an aerodrome in Salem. Salem has emerged as an important commercial centre and its link by air to other centres in the State and other southern

States, should be undertaken in the early years of the Fifth Plan.

Pollution : It is true that the dangers of pollution are less serious in the State and the Country—in fact in the third world—than they are tn the rich countries of North America, Europe and Japan. And certainly pollution and environmental degradation should not be used to slow down our development work and priorities. But within this general caution, Madras city should deal with growing problem of air pollution, which is more easily controllable by technological means than water and other pollutions. The Ennore - Tiruvottiyur - Manali area is spuming pollutions in the air as do the old and worn out vehicles on the road. This can be controlled now by action by the industries and by the motor buses and lorries which contribute 25 per cent of all air pollution in the city. The IIT, Guindy, the Central Public Health Eugineering Institute, and the State public health and police authorities are working on means of reducing and controlling the pollutants. Now punitive action must be taken against industries and vehicles which offend against the norms and regulations. The other major need is for the people to develop personal and family traditions and habits of hygiene and cleanliness so that the streets, the fields, the rivers and water courses may be kept clean and free of pollution caused by us the common people.

National

Fifth Plan: The major issue for the Fifth Plan as pointed out in the last issue of the Bulletin is the resources picture. In this regard, the Fourth Plan is likely to close with an over expenditure of Rs. 695 crores overplanned outlay, mainly because of increased expenditure, on agriculture, irrigation, power, large and medium industries, transport, water supply and housing. On the other hand there will be expenditure shortfalls in fertiliser and seed inputs (Rs. 32 crores), land reforms (Rs. 22 crores), health (Rs. 22 crores), technical education (Rs. 2 crores), village and small industries (Rs. 12 crores), animal husbandry (Rs. 12 crores), fisheries (Rs. 6 crores), general education (Rs. 2 crores), and Social Welfare (Rs. 2 crores). Thus against the planned outlay of Rs. 6,783 crores, the expenditure is likely to be Rs. 7,478 crores, the excess being met by increased market borrowings, higher small savings and provident fund realisation and in the last resort by deficit financing. In this situation the States have not done well. Against an additional mobilisation target of Rs. 1,098 crores for the plan period, during the first four years they have mobilised Rs. 1,012 crores and for this year will be raising only Rs. 40 crores, against the Union budget assumption of Rs. 127 crores — (see Vol. III page 236 of the Bulletin). The States have not done their share of resource mobilisation as noted then, as the target was at 1968-69 prices, while their realisation is at current prices. In 1972-73 the States raised Rs. 69 crores and of the Rs. 40 crores to be raised this year Rs. 18 crores accrue from continuing the refugee relief taxes, so that only Rs. 22 crores will have been raised as fresh resources. One area to which the States must turn to raise additional resources is the agricultural sector as pointed out in previous issues of the Bulletin (Volume III pages 14-15, 90). Actually even land revenue receipts have fallen from 7.6 per cent of the total State receipts in 1969-70 to 6.2 per cent in 1973-74. It is to be hoped that after the Sixth Finance Commission recommendations are published, the States will get down to the task of resource mobilisation for the Fifth Plan which can move in new directions such as socialisation of urban land, and

an effective agricultural holding tax. In this connection the result of a recent study shows that the affluent rural households are not making a contribution to the resources needed for development, if account is taken of the fact that due to the investment by the government to a large extent, agricultural incomes have increased from Rs. 5,825 crores in 1960-61 to Rs. 14,070 crores in 1970-71. About 10 per cent of this total is earned by the top income rural households earning Rs. 20,000 and above. Seven States--Punjab, Haryana, Rajasthan, Gujarat, Maharashtra, Madhya Pradesh and Mysore—with about 1/3 of the Country's rural population account for 7/10 of the total members of top income rural households. It is in these States, particularly Punjab, Haryana and Rajasthan where the top income groups earn more than 20 percent of the State's agricultural income —that there must be a serious effort at agricultural resource mobilisation. For States like Tamil Nadu, UP, West Bengal, also, the effort must be made, though their top income groups earn from below 1 percent to 5 per cent of the State's agricultural earning.

Meanwhile the Union Planning Commission has completed in August and early September, its discussions with the States on their draft Fifth Plan as with the Union Ministries. Every State has presented its plan well in excess of the target that has been indicated by the Union Planning Commission. Maharashtra's Plan for Rs. 3,600 crores, Gujarat for Rs. 1,600 crores, Mysore for Rs. 1,350 crores Kerala for Rs. 747.50 crores Tamil Nadu for Rs. 1,500 crores, West Bengal, Punjab, Haryana for similar excess amounts are each making special cases for a larger plan. The rates of growth proposed in these plans vary from 6 percent (Kerala) to 8.4 percent (Mysore). The Commission, pending the report of the sixth Finance commission is attempting to bring the plans back to the figures that it had originally indicated to them. Similarly with the Union ministries, plan reductions have been indicated. For the power plan, against the 38 million KW capacity planned for the end of Fifth Plan by the power ministry, the Planning Commission has proposed a 36 million KW plan. For the shipping target proposed at 10.6 million GRT the Commission has proposed a scaled down target of 8.6 million GRT. Education and health are similarly being reduced by around 20 per cent, in this case because of resource constraints. The ministry of heavy industry has presented a Rs. 583 crore plan, with Rs. 200 crores for establishing a new heavy machine building complex, Rs. 80 crores for expansion of HMT, Rs. 113 crores for BHEL and Rs. 50 crores for the Jabalpore vehicle factory. Under the minimum needs programme, a large share, Rs. 500 crores is envisaged for rural roads. The agricultural sector for the Fifth Plan has been finalised, with higher growth rates for rice, maize, jawar, pulses, sugarcane, cotton, oilseeds and jute, and overall growth rate of 4.2 per cent. The public sector outlay will be Rs. 7,300 crores, with Rs. 4,950 crores in the State sector and Rs. 1,930 crores in the Central sector and Rs. 420 crores in the centrally sponsored sector during the plan period. 11 million hectares of gross cropped area is projected to raise the total to 180 million hectares, with a target production of 140 million tonnes food grains, 12.5 million tonnes oil seeds, 80 lakh bales cotton and 77 lakh bales jute. Post harvest facilities, marketing facilities for small farmers and labour intensive agricultural programmes are to be intensified. In addition States have been asked to plan and include contingency finances in their plans for natural calamities, which is a much needed improvement over past plans. Under this arrangement, each plan will identify the

areas susceptible to drought, floods, and earthquakes, the order of priorities to be assigned to various types of labour intensive work and a list of standby works for each block which will smoothly and productively go into operation not on an ad-hoc basis as at present but as part of the plan. In the course of these discussions between the Union Planning Commission and the States, there have been indications of the First Year's plan for the Fifth Plan which will be above the current year's plan outlay of Rs. 4,364 crores. How much above will depend on the final resource picture as it emerges and cut back in the current year's outlay to which reference will be made. It is not unlikely that the first annual plan of the Fifth Plan will be around 20 per cent higher than this year's outlay. With the completion of the discussions on the various States and Union ministry drafts by early September and the simultaneous approval of the resources working group report, the draft Five year plan will be ready by the end of September or the beginning of October. The recommendations of the sixth Finance Commission will decide the plan outlays and will be incorporated in the final Fifth Plan document in March 1974.

Railway Deficit: In the August session of the Lok Sabha, advance advice has been given to the Country that the deficit in the railways will be much larger than the uncovered gap of Rs. 9.80 crores forecast at the time the year's budget was approved (see Vol. III pages 236-237). The dearness allowance and the third pay commission salary adjustments will involve an additional expenditure of Rs. 60 crores. The loco staff strike cost Rs. 12 crores. The grain wagons transporting food at subsidised rates also will be adding to the deficit. Under these circumstance the railway administration will have to practise rather strict economy and organise its schedules so as to earn additional revenues. On the economy side, a 10 per cent cut in plan expenditure, travel and daily allowance and contingencies could reduce expenditure by Rs. 20 crores. Simultaneously the earnings should be raised.

Prices: Prices continued to rise in July. The wholesale price index for the week ending July 28 was 251.9 recording a rise 0.7 per cent compared to the previous week. The all commodities index was 4.1 percent higher than a month ago and 22.4 per cent higher than a year ago. The monthly average for July stood at 248.7 which was 22.8 per cent higher than the price level 12 months ago. All groups registered a sizeable increase over the 12 month period—food articles by 24.8 per cent (rice 17.4 per cent, wheat 7.1 per cent) liquor and tobacco by 9.2 per cent, fuel power and light by 6.4 percent, industrial raw materials by 64.7 per cent (groundnuts 120.2 per cent, raw cotton 66.1 per cent), machinery and transport equipments by 5.8 per cent, chemicals by 6.9 per cent, and manufactures bv 10.2 per cent (intermediates 18.1 per cent and finished products 7.9 per cent). The result was that August witnessed a series of actions by consumers and political parties to reduce prices, leading to bandhs, food riots and even forced sales and looting. Starting in Bombay and other cities in Maharashtra, the anti-inflation spread through the Country, Delhi, Bihar, Madhya Pradesh, Gujarat, Andhra Pradesh, Rajasthan, Kerala, Mysore etc. In Bombay the government and the wholesale merchants set up six committees to fix the prices of essential commodities, oils, bread, milk, sugar, gur, coarse grains etc. There was some temporary relief as a result of this agitation but even where committees had fixed prices, retailers and consumers were being short-changed through lowering of quality, reducing the weights etc. by the wholesalers. The basic

causes for the abnormal price rise are as set forth in earlier issues of the Bulletin, fall in production, lack of adequate distribution channels, hoarding and black marketing, deficit financing and credit expansion (see Vol. III pages 324-326 and 478-480). It is only the three latter factors which are susceptible to immediate action. It is hoped that the rains this year and a similar good monsoon next year will increase production and that the shortages will begin to decline from the winter of this year. On hoarding and black marketing, no direct action has yet been taken by the government. On the credit side as pointed out in the last issue of the Bulletin Vol. III page 560-561), RBI is continuing to tighten the credit market. It has further increased the minimum cash reserves of the scheduled banks by 2 percentage points effective from September 8 and September 22, impounding a further Rs. 220 crores. Thus in three months the reserve ratio has been raised by 4 per cent in mobilising a total of Rs. 440 crores. This will also indirectly reduce resources to the Union Government. Further steps to increase savings would be to increase interest rates on Government bonds and small savings and in fact gradually move to a system of guaranteed real interest rates. Companies and the corporate sector generally should resort more to the money market and raise their funds in shares and debentures and cease relying so largely on the banking system. Further the RBI should raise the bank rate from 7 to 8 or 9 per cent as a means of rounding off its action against inflationary psychology. The other anti-inflationary programme proposed in Vol. III pages 480 is now being acted on. From August, the Union budget is being decreased by Rs. 300 crores and the State Plans are being reduced by Rs. 100 crores. The Union Planning Commission has been urging a reduction in deficit financing for this year which has already passed the Rs. 380 crores mark (see Vol. III page 560 of the Bulletin) and which undermines the financial credibility of the Fifth plan. The details of the reduction in the Union budget are still being worked out: they will involve cuts in plan outlays which it is hoped will fall on non-priority items and on non-plan expenditures, on contingencies, entertainment, travelling allowances, construction of non-functional buildings, maintenance of roads and buildings, conferences and seminars, and creation of new and filling of vacant posts. State governments are also being asked to undertake similar reductions so that their share of the reductions—Rs. 100 crores—may be attained. Public sector enterprises are also to introduce cuts in their non-plan expenditures. The broad guidelines of plan cuts are Rs. 63 crores in approved plans, Rs. 52 crores in advance action, 10 per cent in the Rs. 167 crores of centrally sponsored schemes. Thus the plan reduction will be around Rs. 150 crores. It is doubtful if the target of Rs. 400 crores reduction can be realised as action has been taken on it only from the middle of the year. But the effort must be made and all non-plan and non-development expenditures must be pruned. The third pay commission report recommendations will cancel the effect of a part of these economies. If in addition to these measures the government can also formulate and implement a new pricing policy for industry not based simply on the cost plus formulae and improve and control the distribution system for essential commodities, there will be some relief to the consumer.

Food grain take over and Food imports: The problems and the lack of success of the wheat takeover analysed in the last four issues of the Bulletin do not diminish the importance of the measure which is one of the pillars on which the programme to reduce poverty in the Fifth

Plan stands. The hard lessons learnt in the wheat takeover programme should help the government—Union and State—and the trade, to work towards a distribution system which can meet the food and other essentials needed by the poverty sector as from next year. For this year's Kharif season, the machinery is not ready for the take over of rice and a control system to supply rice to the deficit States and regions will be operated. Meanwhile the other side of the take over programme—the arrest of hoarders and the seizing of stocks—have been proceeding rather slowly. Punjab, Haryana and Tamil Nadu have not faced a serious problem in this regard. In Jammu and Kashmir 2000 arrests have been made under the Hoarding Act, in Rajasthan 131 arrests and 82,795 quintals of food grains seized, in UP 73,866 quintals were seized, in Gujarat 1,220 persons were arrested, in Bengal 97 persons were arrested and 4,916 quintals of food stuff uncovered, in Bombay 95 persons were arrested, in Andhra Pradesh 14,040 quintals were de-hoarded and so on. It is hoped that public opinion will slowly be building against hoarding and other malpractices as the law uncovers these activities. The government confirmed in the Lok Sabha (August session) that against the target of 8.1 million tonnes of wheat, only 4.3 million tonnes have been procured in the Country—the figure reported in the last issue of the Bulletin (page 561). There is still no official announcement of how much wheat is being brought from abroad and imported into the country. The finance minister referred in a news conference to the government's programme to import 4.5 million tonnes of food grains but whether this is in addition to or part of the 1.6 million tonnes which have been imported at a cost of Rs. 132 crores has not been clarified. The government also announced in Lok Sabha that the first purchases of wheat had been at $125 to $130 a tonne. In August it had increased to $160 a tonne and the freight rate had more than doubled from $15 to $40 a tonne. So the landed cost of wheat will be $200 a tonne. Under these conditions the total import bill for 4.5 million tonnes will be well in excess of Rs. 560 crores forecast in the last issue of the Bulletin page 562 and the strain on the Country's foreign exchange will be serious.

Poverty: The Union Government placed a document in the Rajya Sabha (August session) defining the percentage of people in each State living below the poverty line. The poverty line is defined at Rs. 20 per person per month in the rural arears and Rs. 30 per capita per month in the urban areas at 1964-65 prices. On this definition 44.57 per cent of people living in rural areas and 51·34 per cent living in the urban areas are living below the poverty line. The break down by States in the descending order of poverty of the percentages of the rural people is :

Orissa	62·04
Kerala	60·82
Tamil Nadu	50·94
West Bengal	50·19
Karnataka	48·99
Maharashtra	47·02
Madhya Pradesh	46·32
Gujarat	45·59
Bihar	42·80
Uttar Pradesh	41·69
Rajasthan	35·29
Union Territories	33·24
Jammu and Kashmir	26·63
Punjab	22.69
Haryana	21·16
Assam	18·30

The urban poverty by States is as follows:

Kerala	66·36	Karnataka	51·81
Uttar Pradesh	62.56	Rajasthan	51·41
Jammu and Kashmir	61·38	Assam	48·51
Andhra Pradesh	57·61	Haryana	48·11
Orissa	57.58	Maharashtra	43·93
Bihar	55 55	Punjab	43·39
Tamil Nadu	55·16	West Bengal	40·18
Madhya Pradesh	54·73	Union Territories	24·12
Gujarat	54.48		

This official statement differs in detail from other computations made by Dandekar and Rath, by the Tamil Nadu Planning Commission and this Institute. But the profile of poverty in all such quantifications is clear and for Tamil Nadu the moral is serious as in the rural sector it has the third largest percentage and in the urban sector the seventh largest, living in conditions of poverty. The tasks for this year's plan and for the Fifth Plan in reducing poverty represent a priority.

National Production Front

Fourth Plan Production Balance Sheet: The government's statement at the August session of the Lok Sabha on our production effort shows a rather serions production shortfall in key sectors of the economy as follows:

Head of development	*unit*	*Fourth Plan target*	*Likely achievement*	*Short Fall (per cent)*
1. AGRICULTURE				
(A) Foodgrains	million tonnes	129	115	10·8
(B) Commercial crops				
(i) oilseeds	million tonnes	10·5	9·4	10.5
(ii) sugar cane	million tonnes	150.0	135.0	10.0
(iii) cotton	million bales of 180 Kg. each	8.0	6.5	18·7
(iv) jute and mesta	million bales of 180 Kg. each	8.5	6.7	18·8
(C) irrigation (major and medium)	million hectares	23.3	21.4	8.2
2. POWER	installed capacity in million kw.	23.0	19.0	17.3

Head of development	*unit*	*Fourth Plan target*	*Likely achievement*	*Shart Fall (per cent)*
3. INDUSTRIAL PRODUCTION				
(i) steel ingots	million tonnes	10·0	7.54	24.6
(ii) steel	million tonnes	8.1	5.42	33.1
(iii) coal	million tonnes	93.5	80.00	14.4
(iv) cement	million tonnes	18.0	15.00	16.7
(v) iron ore	million tonnes	51.4	38.00	26·1
(vi) refinery products	million tonnes	26.0	22.00	15.4
(vii) fertilisers :				
nitrogenous	1,000 tonnes	2,500	1,200	52.0
phosphatic	1,000 tonnes	900	400	55.6
(viii) aluminium	1,000 tonnes	220	195	11.4
(ix) copper	1,000 tonnes	31	18	41.9
(x) sugar	1,000 tonnes	4,700	4,000	14.9
(xi) Cotton cloth	million metres	5,100	4,200	17.6

This means that the physical achivements will be lower than what was forecast in the mid term appraisal document (Vol I No. 10 pages 4-6). The largest production shortfall (over 50 per cent) will be in fertilisers followed by copper (40 per cent) steel (33 per cent) and iron ore (26 per cent). This is a depressing production profile which explains the shortages and inflationary pressures in the economy. Against this the realism of the fifth plan targets can be judged.

The average *index of industrial* production for the first 3 months of 1973 showed a fall of 0.7 per cent compared to the first 3 months of 1972 which is somewhat lower than the 1.8 per cent fall referred to in the last issue (page 563). The decline is not surprising because of the reduction in agricultural production due to drought and the effect of the power cut on which the cumulative loss in production is computed at Rs. 1000 crores. The trend for the year cannot now be forecast, but if the increase of 3 per cent in March over February (compared to the fall of 0.5 per cent in March 1972) in industrial group can pick up during the year there could be some industrial revival. The following table sets forth the index of industrial production for the 3 years.

1960=100

Month	*1970*	*1971*	*1972*	*1973*
Jan.	181·5	183·7	193·9	198·4
Feb.	178·8	182.4	200·4	192.8
Mar.	179·5	184·5	199·3	198·5
April.	186·6	188·8	194·5	
May.	180·6	183·2	199·3	
June.	182·4	186·8	200·4	
July.	178·4	184·1	195·2	
Aug.	174·3	181·3	198·9	
Sept.	179 5	185·1	200·4	
Oct.	179·5	190·1	205·4	
Nov.	182 8	191·3	204·9	
Dec.	181·7	191·3	199·4	
Annual Average	180·5 (4·6)	186·1 (3·1)	199·2 (7·1)	
Average Jan. Mar.	179·9 (5·6)	183·5 (2·0)	197·9 (7·8)	196.6 (-0·7)

Steel : As hinted in the last issue (page 564), HSL production picked up in July. Rourkela increased its steel ingots production from 90,918 tonnes in June to 94,283 tonnes in July, and gross despatches increased from 85,000 tonnes in June to 104,300 tonnes. There was a similar surge in its fertiliser plant by 4,910 tonnes to 19,027 tonnes. Bhilai also increased its steel ingot production from 148,000 tonnes to 163,000 tonnes. Durgapur increased its production from 70,769 tonnes in June to 75,368 tonnes. Durgapur is still recovering from the effect of the power cut on its mills and the shortage and quality of coke on its coke ovens. Production of mild steel in 1973-74 is thus estimated at 6.17 million tonnes compared to 5.15 million tonnes during the last year, involving 74 per cent capacity utilisation. As stated in the last issue, (Vol III, page 564) the demand for steel which is far in excess of domestic production is being met by the import of 1 million tonnes of steel at a cost of Rs. 200 crores. The steel supply system is being reorganised in order to speed up delivery, improve the marketing facilities and prevent black marketing of the allotted steel. The planning of indents, the selection of producers by JPC and a clear established priority listing for uses will improve the system and meet the needs of the small sector. In addition, in the long run the only real remedy for the steel shortage is increased production. On this the first line of action is the planned expansion of Bhilai from 2.5 million tonnes to 4 million tonnes, the expansion of Bokaro to 4 million tonnes, TISCO from 2 million to 4 million tonnes and starting on the new plants at Salem, Vishakapatnam and Vijaynagar. By the end of the Fifth Plan, this would increase production at least to 10 million tonnes. The government has also decided to allow mini steel plants in the private sector to manufacture alloy steel and use pig iron for conversion to alloy steel. This expansion should be along side of the expanded capacity production of the major steel plants. Even if the government's plan to expand steel production every year by 2 million tonnes during the Fifth Plan is not realisable, an expansion of 6 to 8 million tonnes will help to cut down the quite heavy and unnecessary drain on our foreign exchange resources. And then there is the problem of price for both the producer and consumer in the Country. For the Indian producer who is its consumer, the price of imported steel is much too high. Imported structurals are Rs 2,000 per tonne against Rs 1,120 per tonne of domestic steel. Imported plates is Rs 2,500 against the domestic of Rs 1,300. The steel producers in the Country, which are in the public sector undertaking, are being made to sell their product at abnormally low prices. In this situation the government should raise the domestic price of steel to help the producers to break even, and keep at least somewhat in line with international prices.

Cement : Cement demand this year at the end of the Fourth Plan will be 19.57 million tonnes, and a demand for 31 million tonnes per annum will characterise the fifth plan. There is need therefore to expand production by 12 million tonnes. The government has approved 9 schemes of private companies to expand production by 4 million tonnes. Six of these are new schemes and three are old applications which had not been approved earlier. 3 more expansion schemes for a further 2 million tonnes are under consideration. The Cement Corporation of India and the State Industrial Corporations will be expanding their production capacity by 4 million tonnes. There is a balance of 2 million tonnes expansion to be approved which will also be in the private sector. The Union Planning Commission has been responsible for this split of 8 million tonnes additional capacity to the private sector and 4 million tonnes to the public sector

as a means of conserving public investment resources and encouraging the private cement units to plough back their large profits into the needed expansion.

Fertilisers : Within the fertilisers demand which is 52·13 lakh tonnes of nitrogen, 21·86 lakh tonnes of phosphatic and 11·96 tonnes of potassic fertiliser (see Vol. III pages 486 and 566), the gap between the production and demand for super phosphates P-05 is widening. For this year the demand for phosphates is 4.5 lakh tonnes and the supply is 1·93 lakh tonnes. For next year the demand will be more than double to 9.80 lakh tonnes, due to the balanced use of fertilisers which is being promoted on a massive scale (see Vol. III, pages 573-575 and phosphates demand by HYV pulses and oil seeds. To increase the production of P-05 from factories producing complex fertilisers as well as those producing just super phosphates, it is necessary to improve the cooperative and institutional marketing channels for super-phosphates, import pay loaders and spare parts needed by the units to expand production, and increase raw materials supply to the granulated and the mixing units. Fertilisers should not be a bottleneck to the agricultural production expansion now under way.

Crude : In addition to the supply of crude contracted with Iraq and Saudi Arabia referred to in Vol III pages 486-487 of the Bulletin, an agreement with Libya, another non-traditional source, will provide the country with 2 million tonnes of crude in 1974 and a further 2 million tonnes in 1975. There is a problem here in that while the price is not high in relation to international prices, the cost of transportation (round Africa) will be very high and some form of product exchange with other countries is being negotiated. Iran also has agreed to supply 3 million additional tonnes of crude and negotiations are under way for a similar arrangement with Kuwait. With these arrangements India's 1974 demand of 3.85 million tonnes and 1975 demand for 5.25 million tonnes will be met. For the 15 year period 1973-1987, the government now has a total assured supply of 126 million tonnes of crude from non-traditional sources in West Asia and the Persian Gulf. ONGC has also secured its first oil concession in Iraq and this is a further source to be developed to meet the Country's growing need for crude.

Coal : The current coal shortage in the country is in direct contrast to the optimistic picture painted by the Department of mines and which was critically commented on in Vol III page 485 of the Bulletin. Last year the Bihar coal mines produced 17.21 million tonnes against a demand for 21.66 million tonnes, West Bengal 14.91 million tonnes against the demand of 15.38 million tonnes and MP, UP, Maharashtra and Orissa a total of 22.33 million tonnes against a demand of 28.06 million tonnes. The operation of these nationalised mines is the responsibility of the coal mines Authority which should rationalise their functioning and if necessary concentrate on the major mines in Bihar, U. P, and Orissa.

Tyres : Against a growing demand for tyres which will increase three fold during the Fifth Plan, and a gap between current production and the demand of the order of 10 lakhs per annum, the government needs to take measures to encourage the production of tyres by Indian units. At present tyre production is dominated by Dunlop, Firestone, Ceat and Good Year, all foreign owned companies which produce 40.36 lakh tyres per annum. Dunlop and Firestone's request for

expansion in 1971 was approved because that was needed. The problem here is not that the companies are foreign owned but that all their technology is imported from their headquarters (see Vol II No. 6 pages 32-33) and as a result tyre technology is not growing in the country. From this point of view it is sound that the government has decided to set up a public sector unit to produce 1 million tyres a year. That unit must have attached to it an R & D programme which can absorb and improve foreign technology in this field. This cannot be expected of the foreign owned firms, though even here, further grant of expansions and licenses must be made conditional on their operating R & D programmes in their factories.

Cars: The gap between the demand for and production of cars is rather wide and probably this is an area into which scarce investment resources need not be diverted. For this year the three companies — Hindustan Motors (30,000) Premier Automobiles (14,000) and Standard Motors (3,400) will be producing 47,400 cars against a demand for 75,000 cars. None of the units except Premier Automobiles has requested expansion and with the scarcity of the raw materials needed, this is sound. Premier has repuested a small expansion of 4,000 cars. When Maruthi becomes operational there will be a sizeable increase in supply. The sector is however not a priority one for the Fifth Plan.

Newsprint: With serious shortage of newsprint both internal and international - involving a 40 per cent reduction in supply to the consumers, the Union government proposal to set up a newsprint corporation as a public sector unit is timely. Apart from the expansion of the NEPA newsprint plant and the Kerala plant, there is need for the private sector to channel some of its resources in this area facing a serious shortage.

Sugar: The June production of 27,000 tonnes of sugar (which is nearly double the June 1972 production) brings the total production for the first nine months of 1972-73 to 37.89 lakhs as forecast in the last issue (Vol. III page 566). There is no reason or excuse for the high price of sugar except the faulty releases and off take system. Total despatches for the first 9 months for internal consumption were 26.05 lakh tonnes and stocks with factories amounted to 17.22 lakh tonnes. If this imbalance is righted, sugar prices will drop to the normal control price level. The release of 3.05 lakh tonnes for September (1.9 lakh tonnes levy and 1.15 free) is a better move.

Small Industries: The reservation of 124 items of industrial production to small scale industries by legislative enactment recommended by the Bhatt Committee (see Vol II No 11 page 81) is now being acted upon by the Union government. Legislation reserving these lines of production for the small sector is being finalised for approval by the Lok Sabha. Similarly the equitable allocation of scarce raw materials to these industries will go into effect when the census of small industries (see Vol III page 597) is completed and the information on capacity of the small scale sector is known. Meanwhile the STC is arranging a package service for this sector for expanding their production base and exports. The package consists of aid in buying the plant needed, procuring the raw materials as well as warehousing and marketing. It has increased the budget of the Industrial Raw Materials Assistance Centre from Rs 10.8 crores to Rs 15.75 crores to assist small units. These measures can to some extent compensate this sector for the serious loss it has suffered this year outlined in the last issue (Vol. III page 570).

Agricultural Production : The Agricultural production picture has its negative and positive sides. On the negative side, we will be ending the Fourth Plan this year with shortfalls in overall food production as well as in individual items, primarily due to the drought and fertiliser scarcity. Against the Fourth Plan target of 129 million tonnes, we will be producing this year 115 million tonnes, with rice 42 million tonnes against the target of 52 million tonnes, wheat 30 million tonnes against 24 million tonnes, maize 6.5 million tonnes against 8 million tonnes. While the target of HYV coverage of 25 million hectares will have been met, the fertilisers shortfall will be 2.5 million tonnes and the irrigation shortfall will be 1.9 million hectares. The egg production target will be met but there will be 6-10 per cent shortfalls in milk and wool production. Even in wheat production, the Punjab produced 53.60 lakh tonnes in this rabi season against a target of 58 lakh tonnes and last year's performance of 56.2 lakh tonnes. The average per hectare yield in that State fell from 2,406 Kg last year to 2,233 Kg this year. The reasons for this decline were bad weather at the time of sowing and the stage of grain development, fungal diseases especially rust, the non-availability of fertilisers and the acute power shortage. On the positive side the sowing operations for the Kharif crop have been satisfactory in all States and even Bihar and Eastern UP which faced a poor monsoon at the start have now received their share of rains. In fact parts of Bihar, Assam, Punjab, Madhya Pradesh, Rajasthan and Gujarat have faced serious flood damage both to life and crops. This year's floods cost the Country Rs 45.83 crores and 283 deaths by August 19 according to a government statement in the Lok Sabha. Even for conserving the momentum of agricultural expansion, flood protection schemes which have averaged 118.5 km of embankments 483.5 km of drainage channels and five village protection schemes per year during this plan period despite heavy outlays (Rs 38 crores) represents a slowing down compared to the annual average of the previous 3 plan periods which was 460 kms of embankments 614 kms of drainage channels and 12 town and 306 village protection schemes per annum. There must have been waste and/or misappropriation of funds on this important programme. Punjab, Maharashtra and Gujarat have had a relatively good supply of quality seeds and chemical fertilisers and should have bumper food and cash crops. While paddy, bajra and maize crops are facing both seeds and fertiliser shortage in other States, the prospects for cotton, groundnut and sugarcane are good and for jute very good. With this prospect, the target for the year has been restored from 107 million tonnes (see Vol. III page 566) to 155 million tonnes as noted earlier. The other input is credit particularly for the small and marginal farmer. The Union Planning Commission's agriculture steering group computes that the short term credit needs are Rs. 2,450 crores and should be provided by the nationalised banks (Rs. 600 crores), ARC (Rs. 400 crores) and the cooperatives (Rs. 1,450 crores). 40 per cent of this total short-term credit is needed by the small farmer and the institutions have been directed to provide him with it.

Exports : The export trade and export earnings have a specially important role in the economy as our import bill is likely to be rather heavy as noted under various items-food imports Rs. 132 crores so far, steel Rs. 200 crores—adding up to a total of over Rs. 700 crores, including import requirements of the export oriented industries. The Country's export performance is improving but its share in the world trade fell from 1·13 per cent in 1962 to 0·67 per cent in 1972. This is to some extent a reflection of the small share of the developing countries in the world trade

which increased by 0.7 per cent while that of the developed countries has increased by 12.1 per cent. For India the inbuilt structural factors keeping down our exports are that traditional exports are still dominant in its export trade and our domestic market is growing and high priced, providing little incentive to export. The major part of our export is tea, tobacco, oil cakes, ores, hides and skins, cotton textiles, jute manufactures coir manufactures etc. The trend in this regard is in the right direction —declining from 85 per cent of our total exports in 1960-61 to around 65 per cent in 1971-72. Our export expansion depends on increase in the volume and percentage share of the non-traditionals, which are not subject to the declining prices and fluctuations of the traditionals. The second structural factor is our high priced, large and growing domestic market which makes the export market relatively less attractive to the producers. The external factors which depress our export trade—the tariff and non-tariff barriers, high shipping freight rates, competition from synthetics, technological improvements leading to use of a small quantum of our exports as inputs-also act as depressing factors. Our jute manufactures—carpet backing and sacking are a case in point. Last year the demand for Indian jute was high as there were no exports from Bangla Desh. Now with the good jute crop in India, Bangla Desh and Thailand, and the competition from synthetic substitutes, India is losing its U. S. and European markets. The Government's decision to abolish the export duty on sacking and reduce that on hessian will help to make our exports more competitive. Further with the substitutes with a petro-chemical base becoming more costly as the price of crude rises, jute R & D should be intensified to popularise use of gunnies as packaging materials. Simultaneously the non-structural factors retarding our export expansion such as shortage of raw materials, inadequate transport and shipping facilities, power shortage and lack of quality control can be corrected. The monetary factor—domestic inflation and international exchage rates fluctuations—must also be cushioned if our exports are to grow.

The provisional estimates of the 1972-73 exports released by the Ministry of Commerce are Rs. 1,962 crores—higher by over Rs. 100 crores reported in Vol. III page 490 of the Bulletin. This was a 22 per cent increase over 1971-72 compared to the targetted 19 per cent increase. The high export growth rate was due to a 19 per cent improvement in the engineering goods performance of Rs. 150·24 crores, a jump in the exports of leather and leather goods, cotton textiles and handicrafts, some gains from the revaluation of exchange rates of importing centres and new trade relations with Bangla Desh. The government has set a target of Rs. 2,000 crores for this year with heavy emphasis on chemical and engineering export products. For this a three point export strategy is being developed. The first is to expand our exports in manufactures and semi-manufactures under the GSP offered by EEC, Australia, Japan, and U. S., despite the limitations of GSP. The second is to enter the labour intensive export product area as the developed countries are vacating this area due to the manpower shortages they face. The third is to participate in the vast construction work which the social development programme in Europe including East Europe involves. There are also the bilateral trade arrangements with the third world where our exports can help its programme of industrialisation. In turn this calls for simplification and stream lining of licensing procedures for export oriented industries. It would be a step forward if firms who export 60 per cent of their output could have their licenses cleared within three months as stated by Ministry

of Industrial Development. It is hoped that the separate secretariat set up for this purpose will expedite licensing action. Another effect of increasing exports should be an increase in the earnings of India's shipping lines. At present their share is about the same as that of foreign ships. Of the Rs. 3,375 crores of trade, Indian ships earned as freight Rs. 174 8 crores and foreign ships Rs. 162.93 crores. The India–Sudan trade review in August has helped to correct the heavy favourable Indian balance and restored the £ 26.55 million import of Sudanese cotton, coarse grain and oil seeds and the Indian export of £ 23.45 million engineering goods, tea, textiles, spices and perfumes. Further in view of the high international price of sugar, the government has decided to increase its export of sugar from 2.5 lakh tonnes to 4 lakh tonnes. It has an export quota of 5.5 lakh tonnes under the Commonwealth quota, the international sugar agreement and the U.S. quota. This will leave about 5 lakh tonnes for carry over to next year. This increased export income can partly help to pay our food imports. With regard to the 3,600 wagons to be exported to Yugoslavia (see Vol. III page 179 of the Bulletin) the production programme continues to be interrupted due to power cut and shortage in Calcutta. An interesting development is the first rubber export of the Country which was made to USSR, UK, and West Europe in August of 1000 tonnes. The Foreign Exchange Regulation Bill following the Kaul committee report on the leakage in the Country's foreign earnings passed by Lok Sabha at its August session aims at conserving the Country's foreign exchange resources. It imposes regulations on consignment sales, the registration of export contracts and requires prior intimation of export values. This procedure can affect some of our exports like tea, and engineering goods and must be administered flexibly and simply. The leakage from this source was computed by the Kaul committee at Rs. 240 crores. It is important to see that we don't lose more through the restrictions now introduced. The other provision is to convert branches of foreign companies into Indian Companies and reduce the foreign participation in a manufacturing company to 40 per cent except in the case of companies engaged in a priority sector or which is export oriented. This is a large loophole. What is needed here is a firm policy and control over repatriation of profits, dividends and other remittances. And as for repatriating home all foreign earnings, this must start with those in business and government who are now offending this regulation.

Aid : August saw three aid agreements signed, one of which, that with Canada has been discussed under the State power sector. West Germany signed an agreement at the end of June for DM 310 millions (Rs. 95.79 crores) and for the first time the aid is completely untied. Project aid has always been untied but this is the first time that commodity aid has been untied. In addition the agreement provides for India's export to Germany of automobile ancillaries, bicycles, electronic equipment and dyes. Also an agreement at the same time with the Netherlands provides a loan of guilders 68 millions (Rs. 1.85 crores) as programme and project assistance. The loan can be disbursed by India over 2 or 3 years and not only within the fiscal year. The World Bank aid which during the five years 1969-73 doubled to $1,740 million will go beyond financing capital goods imports, to agricultural and rural development, fertiliser and public sector plants and an urban development project for Calcutta for which an agreement for $ 35 million is soon to be signed. As the US Aid is winding up its operations in India,

it is well to recall that the Country received $ 10 billion in United States economic assistance during the past 21 years. The government loans repayable in dollars amounted to Rs. 2,393.54 crores, loans repayable in rupees Rs. 1,708.92 crores, to non-governmental bodies Rs. 144.57 crores in dollars and Rs. 100.56 in rupees. The total repayable loan is Rs. 4,347.59 crores. This is an impressive record as an essay in international cooperation of which India is both proud and grateful. The negotations with regard to the disposal of the U.S. rupee holdings in India, are continuing and on many points agreements between the government and the U S. embassy is emerging. These rupee holdings which are termed in popular parlance PL 480 funds actually consist of PL 480 and non-PL 480 funds. As at March 31, 1973 the PL 480 rupee funds (deposited by India for Purchase of agricultural commodities) were Rs. 188.74 crores and non-PL 480 rupee funds (repayments by India of U.S. development loans) were Rs. 510.00 crores making a total of Rupee holdings of Rs. 698.74 crores. It is this sum which is now being negotiated and the Indian formula is to repay this amount annually at the rate Rs. 46 crores over a 15 year period. This proposal emerges from the U.S. suggestion to repay Rs. 75 crores per annum over 15 years and the Indian counter proposal for a much smaller sum. The U.S. would like to use the balance to finance trusts for development programmes such as rural electrification, construction of silos, family planning and literacy campaigns. The government is not averse to this suggestion. The disposal of Rs. 698.74 crores is the first point on which agreement should be reached. The second issue is the outstanding PL 480 loans and non PL 480 loans which amounts to Rs. 2,584.94 crores repayable at 3 per cent interest by the end of the century which will by then have reached the staggering figure of Rs. 5,600 crores. It is this sum on which agreement should be reached for its being written off. If the current holdings of Rs. 698.74 crores are settled, there is nothing in Congressional legislation requiring congress approval of such an agreement.

International

Bangla Desh : Under the 3 year India-Bangla Desh trade agreement concluded in July (see last issue Vol. III page 569), India has been requested by Bangla Desh to supply Rs. 3.5 crores of textiles and ensure the early supply of coal and cement. In turn Bangla Desh will provide for this year 10,000 tonnes of newsprint which was noted earlier is in very short supply, and step up its supply of fish to India. It is hoped that this kind of exchange will avoid the serious imbalance of April-December 1972 when India exported Rs 59.80 crores to Bangla Desh and imported only Rs 1.4 crores from it. The coal deliveries to Bangla Desh will be facilitated by the India-Bangla Desh inland water transport accord arrived at in Mid July under which Indian coal ships will call at Fatullah, near Dacca for unloading coal, as the berthing facilities in Dacca are as yet unavailable. With the restoration of the water routes since the last 12 months, 80,000 tonnes of cargo has been shipped, including 56,000 of coal from Calcutta to Narayangang and 15,000 tonnes of jute from Bangla Desh to Calcutta. Agreement was also reached on the manner and water routes to be used by India in shipping goods from one port of India to another, covering trade between West Bengal, Assam and Tripura. Feasibility studies by Indian engineers from Metallurgical and Engineering Consultants (MECON) are being undertaken for a steel plant in Bangla Desh (see Vol III page 494 of the Bulletin). There are two proposals for the study. The first is a medium size steel plant using natural gas and a

direct reduction process, instead of the traditional blast furnace and coke, for producing sponge iron which can be used in our furnaces. For this, India must provide iron ore and coal. The second project is to improve the production of the Chittagong steel mills built by Japan. Another joint project being discussed is a fertiliser factory in Bangla Desh which can be of use to both countries.

World Inflation : All countries are passing through a serious inflationary phase, the price of food is rising sharply, with an unprecedented increase in the world demand for wheat led by the USSR, China, India and Pakistan. The major source of meeting this demand is the U.S. as the other 3 sources-Australia, Argentina and Canada—have not had a good harvest. Argentina has actually banned further exports. The U.S. crop is expected to be 1.7 billion bushels of wheat and 5.7 billion bushels of corn (36.7 bushels = 1 tonne). The Soviet Union will be purchasing wheat again this year from the U.S. with a small reduction of around 8 per cent, as will China, Pakistan and India. Countries with hard currencies like Morocco, Iraq, Japan are buying up wheat to build their buffer stocks. (Japan which buys one lakh tonnes per week bought 2 million tonnes in the first week of August). In fact more than one million bushels have been bought up by these countries from the as yet unharvested crop. And so food prices are rising in Singapore, South Vietnam, Italy, France and the U.S. itself. The OECD has sounded the alarm at this annual 7 per cent inflationary spiral arising from internal inflationary policies, uncontrolled international liquidity (see Vol III pages 495-496), rising standards of living in the rich countries, the massive crop failures in the Soviet Union and Asia and instability in world currencies. The inflationary effects can be seen in the decline in the domestic purchasing power of all currencies. Between 1963-73, the internal value of currency fell by 99 per cent in Argentine and Brazil, 74 per cent in Yugoslavia, 49 per cent in India, 47 per cent in Philippines, 43 per cent in Japan, 42 per cent in Pakistan, 40 per cent in UK, 38 per cent in Sweden, 35 per cent in France, 32 per cent in Ceylon, 31 per cent in Australia, 30 per cent in US, 29 per cent in Canada and Germany. Gold prices have tended to fall in August, touching $ 90 an ounce by mid August, moving up to $ 107 per ounce by the end of the month. Gold prices kept in step with the dollar which improved at the start of the month and weakened again in European, Soviet and Asian markets. The UK trade figures announced in August showed a record trade gap of £159 million for July, sending clearing rates to 10-11·5 per cent and weakening the pound.

Monetary reform : It is against this background that the Committee of twenty met at the end of July to devise a new monetary system with a new set of rules which can help in restoring an element of stability in the world economy, promote trade and help the development of the developing world. The meeting was a disappointment in terms of reaching an agreement on the new system. The one positive decision made was with regard to the new set of rules to correct serious imbalances of international payments. On this there had been two opposing views. One was that put forward by the U.S. (see Vol. III page 181 of the Bulletin) that there should be agreed reserve indicators which should lead automatically to corrective adjustment action. The other view was that the adjustment should be made on the basis of a general assessment made by the International Monetary fund. At the meeting, the U.S. modified its position and so the new rules have been established under which exchange rates will be adjusted on the basis both of the

reserve indicators and on assessment of the country's balance of payment position by IMF. A second issue on which agreement was reached among the developed countries was on the convertibility of the large dollar balances in Europe. Here the French government's shift in position enabled them to reach agreement that on a limited basis, a consolidation arrangement for converting some of $ 80 billion held by the European central banks will be worked out. On this the developing countries' committee of 24 have entered strong reservations about the extent to which SDRs will be used to secure this convertibility. On none of the other basic issues was agreement reached. These are the allocation of SDRs and the manner of their allocation. (a) The committee of 24 (of the developing countries) has reaffirmed the position of the developing countries that the amount of SDRs and their allocation should be determined solely by global monetary requirements. There was no agreement on this. (b) The question of the link of SDRs to development assistance. Here the committee of 24 (of the developing countries) have declared that there should be a link, that the new system should transfer real resources for their development programme and give them access to the markets of the developed countries. In this matter, India has given up its position that SDRs should be channelled through the World Bank for development assistance with a view to promoting unity of views among the developing countries. There was intellectual acceptance of the position by the developed countries but the U.S. was opposed to it and no progress was made: (c) The role of gold, and the position of the developing countries in the decision making processes of the fund on which again no agreement was reached. It now looks as if the world will have to wait till 1974 September for an agreement and for 1975 for it to go into operation. It is to be hoped that the world economy and the developing countries' economies in particular can wait that long without further serious disruptions. This seems doubtful.

GATT : The next round of trade liberalisation negotiations (see Vol III pages 412-413 of the Bulletin) has been prepared by the negotiating committee of GATT through a declaration which will be debated and confirmed at the September meeting in Tokyo. The negotiations themselves will start in November in Geneva and should be completed by December 1975. The last (Kennedy) round took 5 years to complete and dealt only with industrial tariffs, whereas this round in 2 years will deal also with the more difficult agricultural and non-tariff barriers. The negotiations will start with a careful analyis of the trade practices of each participating country of its position vis a vis others, on which the GATT secretariat has done a lot of work and then the actual bargaining will take place. The interest of the developing countries will no longer be helped by proliferating general UNCTAD resolution or declarations. There is agreement on removing non-tariff barriers and trade restrictions, to offer GSP and special and more favourable treatment to exports from developing countries. Now the developing countries should take these principles, do their home work and engage in detailed and hard bargaining. The link between trade and monetary matters in the GATT declaration is in the interest of the developing countries and should be retained and translated into operational terms, both in the trade negotiations and the monetary reform discussions.

Multinational Corporations : J. J. Schervan Schriber's Defi Americain, misnamed because he was really dealing with multinational corporations, in the mid sixties called attention to the remark-

able production achivements of multinational corporations and their contribution to capital growth, constantly improving know-how and costly technology. And the developing world to a lesser extent than the developed world of Europe, North America and Japan has also through the corporations received their share of the flow of capital—direct and portfolio and import of R & D results into their economies. In fact as the rich countries have become aidweary, the multinational corporations have expanded their activities in the third world to prove the point that it is not aid that was being given to these countries but good profitable business that was being developed. The problem raised by multinational corporations, however, is that their financial size is enormous, larger than the GNP of most countries of the third world and equal to that of some of the rich countries. Sprawling over many nations, they are accountable to none and have engaged in restrictive and questionable practices in patents, know-how fees, supplies of obsolete equipment, unfavourable pricing restraints on raw material sources, export links and controls, and have indulged in political interference in both the rich and poor countries. ITT not only tried to overthrow the elected government of Chile it also financed the presidential election campaign in the U.S. Apart from extreme examples like this, the basic principle of the need to relate such international power to international accountability is brought out in a United Nations report published in August in response to a decision to examine the functioning of multinational corporations by ECOSOC. The report suggests three alternatives for ensuring such international accountability. First guidelines to ensure the control and regulation by a single authority which can harmonise their operations with public interest can be developed and administered by a specially created U.N. body. Or a limited set of universally accepted principles can be established and administerd by a GATT type of self enforcing body with powers to investigate and make recommendations. Or a code of conduct for multinationals can be established and agreement of governments and the companies secured with regard to it. Probably the last and weakest alternative is where the U. N. can start but it should make a start.

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II. Agricultural Development

Paddy :

With the Kuruvai paddy harvest starting from mid-October and the good crop forecast analysed in the last issue (Vol. III pages 573 and 574), the government is readying itself for a large and successful procurement programme to meet the needs of the fair price shops, to make available supplies to the deficit areas in the State and to provide supplies to Kerala and its share of the central pool. In mid-August the government raised the procurement prices of paddy by Rs. 10 per quintal from Rs. 49 to Rs. 59 for coarse variety, from Rs. 53 to Rs. 63 for medium grade, from Rs. 56 to Rs. 66 for fine variety and from Rs. 58 to Rs. 68 for superfine in accordance with the recommendations of the Agricultural prices Commission. This compensates the farmer for the rise in the

price of his inputs and provided purchase centres are established at the main producing points during the Kuruvai harvest time, the procurement should be a successful operation. A second decision announced at the same time has been to raise the levy from 25 per cent to 33 1/3 per cent in Thanjavur, Kanyakumari and notified districts of Tiruchi in order to provide an adequate buffer stock. Third the restriction on the movement of paddy has been lifted from the districts of North Arcot, South Arcot and Chingleput while it will continue in the districts of Thanjavur, Nilgiris, Coimbatore, Kanyakumari and some taluks of Madurai and Tiruchi. Another important development is the launching of the Rs. 40 lakh centrally sponsored whole village development project in the Melaneelithanallur block of Tiruuelveli district which will benefit 2,000 small and marginal farmers. 63 per cent of this programme will be for the development of irrigation in the area and provide the farmers with the needed package of inputs. This pilot programme will both stabilise the uncertain crop yield in the block and expand the yield.

Chengam :

The Central State farm in Chengam, North Arcot district (see Vol. I No. 9 pages 9-10 and No. 10 page 17) has had a good year. With the help of ARC, the farm will have 300 large wells, each costing Rs. 35,000. 4,000 acres of 10,000 acres are now ready for use, with 1,300 acres growing groundnuts. In addition to experimenting with improved dry crops, it is developing a vegetable farm and is specialising in the production of vegetable seeds for the State and for the Southern region as a whole. The Chengam farm is developing into an important dry farming project in the State and its success is due to the close cooperation and coordinated action of the Union and State Governments and their agricultural departments.

Cotton :

In addition to the fungus resistant cotton strain being developed at IARI, Coimbatore (see last issue of the Bulletin page 574), the Tamil Nadu Agricultural University is experimenting with a new hybrid cotton CBS-156. This variety now being tested in district trials has a longer fibre than sujata at 32.6 mm against sujata's 28.3 mm and matures in 170 days which is 10 days less than sujata. Its output per acre is double that of sujata at 3,035 kgs per hectare against 1,671 kgs. per hectare of the latter. It has a higher CSP and the same ginning percentage. When this variety is ready for distribution, it will be the HYV for cotton in this State, similar to the H-4 of Gujarat and Varalakshmi in Mysore. Two other hybrids CBS 25 and CBS 34 are also being tested in farm holdings in Coimbatore. These two hybrids also excel sujata in all respects except in ginning strength. The time is not far when the State production of cotton will be able to meet a greater part of the mill requirements than is done at present.

Fruits :

Banana cultivation in the State is facing both improvements and a disease problem. The Tamil Nadu Agricultural University has helped to determine the cost-income relation of different varieties—Poovan, Rastali and Robusta and standardise the needed fertiliser application. It has demonstrated that Robusta needs less fertilisers than the other varieties and its yield is much higher per unit of fertiliser application. This has a direct bearing on the banana grower's choice. In view of the demand for the other varieties in the State, the University should establish the optimum dosage of fertilisers for them also. In regard to the Madurai Variety of bananas, August witnessed the spread of the bunchy top virus in about 40 per cent of the 28,000 acres of the fruit crop in the

district. The Department and the Madurai productivity Council have taken action in helping the growers to identify the affected plants and destroying them. Here again the Tamil Nadu Agricultural University needs to develop virus resistant strains to help avoid future attacks. The University also released in May a new papaya strain CO 2 which is like the traditional CO. 1 in taste and flavour but with nearly double the papain content. CO 2 has become very popular in the State. The University with the help of the Fruit Research Station in Periakulam is experimenting on improved crosses between CO 1 + CO 2 and the fruits from other States and Hawaii. The first result of the crossings are positive. This fruit has an important potential contribution to the nutritive levels, particularly for the poor majority in the State.

Poultry Farming :

The decision to establish a National Cooperative Marketing Federation for poultry with a centre at Madras meets a long felt need and will provide a marketing outlet to supplement the good veterinary and extension services that are being carried out in this area. Egg production has increased in Tamil Nadu from 1 million in 1961 to 4 millions today, in India from 2,881 millions to 8,000 millions per annum. The proposal to increase the all-India production to 14,000 millions per annum and the Tamil Nadu production to 9 million large sized eggs per day comes up against the problem that the poor majority in the State and the Conntry do not and will not (during the Fifth and probably the Sixth Plan) have the purchasing power to buy eggs as pointed out in Vol III page 457 of the Bulletin. This is not to weaken the need for improved marketing of such eggs as are produced and poultry which is marketed.

Fish Farming :

The August workshop in Madras on development of Tamil Nadu marine products gave further concrete project shape to the State Planning Commission's fisheries plan (see Vol II No 12 pages 1-2). A Fishing Harbour Development Authority is recommended for expediting the construction of berthing facilities and servicing fishing vessels. The Tuticorin fishing harbour is coming up and landing and berthing facilities are being set up at Mallipattinam, Kodikarai and Chinnamuttam and are being planned at Colachel, Pulicat, Valinokkam and Porto Novo with the help of ARC and nationalised banks as recommended by the workshop. The State exported Rs 5.41 crores of frozen and fresh marine products and Rs 41 lakhs of dried marine products in 1972. A six fold increase in this regard is proposed by the State Planning Commission and for this the workshop recommends that a liaison office of the Marine products Export Development Authority should be established in New York and Tokyo. It also has suggested that with the help of UNDP the gaps in the survey up to 40 fathoms in the off shore and deep sea region should be closed. As a follow up of the plan and the workshop, the Tamil Nadu Agro Industries Corporation is undertaking five projects. First a Rs 2 crore project for deep sea fishing using 8 stern trawlers (4 to be imported and 4 to be manufactured in the Country) will help both the export orientation and meet the needs of the domestic market. Second a Rs 25 lakh factory in Madras will handle 48 tonnes of nylon yarn per year and produce 18 tonnes of net webbings for fishing nets. Third it will set up a Rs 15 lakh freezer storage complex in the fishing harbour site in Madras, with 100 ton freezer store, a 30 tonne ice plant and a 50 tonne ice storage. This will be the fore-

runner of freezing plants all along the Coast. Fourth trawler winches for fishing vessels are to be manufactured. The fifth project is the developing of 500 tonnes capacity warehouses in Madras, Tuticorin and Mandapam to store frozen fish at minus 20 degrees fahrenheit. In addition TIDCO is starting a Rs 3 crore project in Ennore to manufacture diesel engines for fishing boats and at Mandapam will build deep sea fishing boats. With these programmes, fisheries development in the State will begin to be commensurate with the potential offered by its vast coast line.

Dairy farming:

Tamil Nadu has passed through a rather difficult period in its milk supply programme due to the summer dry season. The Tamil Nadu Dairy Development Corporation just managed to keep the programme of standardised milk going. Its supply of inputs to the producers, increased cattle feed utilising the idle capacity of its Ambur feed mixing plant and its various schemes with the banks to provide 10 milch animals to each small farmer, the subsidised cattle fodder scheme, the calf rearing scheme etc should increase the inflow of milk. In August about 5,000 litres were being delivered to the Madhavaram dairy. The second dairy at Ambattur (see Vol III pages 259 and 420) set up at a cost of Rs 52 lakhs will provide 2 lakh litres a day. The Corporation will be using the balance of the Rs. 8.5 crores provided by the National Dairy Development Board to finance the purchase of milch animals by farmers, cattle feed and for providing them with the needed medical and other facilities.

Coffee:

Coffee production and Coffee exports are on the increase. Production went up from 63,619 tonnes in 1969-70, to 89,500 in 1972-73. In 1973-74 it is estimated at 90,000. Similarly coffee and export earnings touched record levels for 1972-73. Exports were 48,128 tonnes, compared to 35,428 tonnes the previous year and the export earnings were Rs 32.8 crores compared to Rs 21 crores in 1971-72. The internal demand for 1973 is likely to be 38,000 tonnes. Up to the end of June it was 20,101 tonnes. This is an area where action is needed to promote the consumption of coffee within the country. The IOC, as pointed out in the last issue (page 576), ceases to be a regulating agency and continues for a further 2 years till 1975 as a clearing house agency. For this year the world coffee production is estimated to be 9 per cent lower than that of last year due to frost damage in Brazil and Panama. Hence the 1973-74 world crop is estimated at 66.9 million bags, the export demand at 54 million bags and export availability at 46.9 million bags. India's export to the quota countries can be increased beyond 25,000 tonnes and its exports to the non-quota countries of USSR and Eastern Europe, West Asia and Japan can be increased a little beyond the similar amount under the trade plan arranged with each of these countries. The proposed market survey abroad for Indian coffee by the Indian Institute of Foreign Trade should place this industry on a firm long term footing. Of the 50,000 coffee growers 49,000 are small growers with rather low productivity. 80 per cent of the total coffee grown is in the South—mostly in Mysore. There is need to extend the present area of 139,478 hectares by another 10,000 hectares in the next Plan period to meet the growing world demand for Indian coffee and promote domestic consumption.

Tea:

The tea industry faces two major problems as pointed out in past issues — the problem of the small producers and the problem of the declining export markets. The small planters' situation is

disturbing particularly in this State where there are some 50,000 planters owning 20,000 acres, giving a holding ranging from 0.5 acre to 10 acres per person. The problem they face is one of basic survival for which they must be able to sell their leaves at around 60–70 paise per kg. Until 1960 the small producer providing largely his own labour was able to sell his leaves to the nearest factory of the large plantations, getting about 60 paise per kilo. As the large planters expanded their own production, the small planters lost this marketing channel and so set up the bought leaf factories for making tea out of the pooled tea leaves. In the Nilgiris alone there were 165 such bought leaf factories set up by the small planters where leaves were bought for 50 paise per kg. Due to the poor and outmoded machinery used, poor quality of leaves bought by them and the rising cost of crude, more than half these factories have had to close down. The price offered by the remaining is as low as 40 paise per kg. which is forcing the small planter out of business. The co-operative tea factories (see Vol. II No. 10 pages 63-64) set up by the State Government cover only 4,000 small growers, are few and far between in the area and in any case can purchase leaves only from their members. In this situation it is necessary for the Tea Board, the Banks and ARC to extend financial assistance to the small growers and the bought leaf factories to rehabilitate their gardens, improve the quality of leaves, instal new machinery and so obtain a better price at the auctions. The Union government in its turn should extend the same concession to the bought tea factories in the matter of excise duty as is extended to the co-operative tea factories—viz 63 paise per kg. instead of the Re. 1 to 70 paise they now pay. These alternative measures are urgent if the small planters are to survive in this State. The other problem is our declining tea exports as analysed in Vol III pages 502-503 of the Bulletin. Here there is need for improving the quality of our product and the recommendations of the Task Force on tea referred to in the last issue (pages 575-576) vesting the responsibility for developmental programme including licensing, replantation, development and research in the Tea Board is sound. With the operational flexibility and the responsibility for proper use of the larger funds given to the Board, it can improve on its good record for improving tea production in the country. Further the recommendations of the Task Force that the Board be authorised to screen applications for import licenses for machinery, equipment and spares against the free foreign exchange allocated to it and to distribute fertilisers also are timely and should be implemented. But it is in regard to its recommendation to vest the promotion of tea sales abroad in the Board that there is some serious question. First the Board's past record here is poor. It has not captured new markets as the African countries have done nor has it maintained our position in the traditional markets as Sri Lanka has done. Secondly the promotion programme is a complex one. It involves three separate types of activities. There is the three-fold need to expand the existing markets, to maximise the share of a particular country in the total market and to popularise particular brands. The Tea Board has concentrated mainly on the first type of promotion spending 53 per cent of promotion funds entrusted to it on this type and only 47 on the other two. Sri Lanka has done the reverse — 76 and 24 per cent. The effect of the Tea Board's strategy can be seen in the result — a decline in exports to the countries where most of the money was spent. In U.S., U.K., and Australia, India's share of the tea market is declining. In fact in no hard or convertible currency market is India

increasing its share though in all these countries, tea consumption is increasing. International companies are reducing the percentage of Indian tea in their blends over the past five years without changing their character or consumer preference. Under these conditions it is essential that the Country concentrate on increasing India's share of each country's total market and leave to the importer and international company the promotion of tea in general and expansion of the tea market. To do this it may be wise to entrust this new type of promotion to an independent non-official semi-commercial body and not continue entrusting this task to the Tea Board. The promotional task is a specific one – increase India's share of each Country's tea market—and for this all commercial techniques should be used by the new non-official promotion body.

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III. Industrial Development

The State's Industrial Status :

Tamil Nadu stands third in Industrialisation according to the Annual Survey of Industries, 1968. The survey shows that the most industrialised States are Maharashtra, West Bengal, Tamil Nadu and Gujarat in that order. The Annual Survey which covered 56,430 factories employing 48.3 lakh workers, a fixed capital of Rs. 7,340 crores, output of Rs. 10,378 crores and value added of Rs. 2,305 crores. Tamil Nadu had 11.21 percent of the total factories surveyed which is higher than that of West Bengal (10.73). The productive capital employed by these factories was 8.44 per cent of the total capital which is rather low both in relative and absolute terms, and less than half than that of Maharashtra (17.02 per cent). The employment provided by the industries constituted 10,09 per cent of the 48.3 lakh workers for all India, which is not too satisfactory. But it is in total output of which the State's share is 9.43 per cent lower than that of Gujarat at 9.54 per cent and value added which is 9.41 per cent, almost a third of that of Maharashtra at 26.11 per cent that the State can and should do better. While on the whole this State stands out in the Survey, the serious industrial backwardness of Assam, Jammu and Kashmir, Orissa, Punjab, Rajasthan and Himachal Pradesh is disturbing. A comparison of this picture with the statement on poverty by States analysed earlier shows that Punjab and Haryana must have made *industrial progress particularly* in the small scale sector in the years between 1968 and 1972. And from this point of view it is necessary that the Union Government make an effort to bring out these surveys without a five year time lag. A two year time delay is normal and would feed the planning process in the Country, instead of being, as it is at present, of only archival interest.

Salem Steel :

The Salem Steel plant time schedule to start production before the end of the Fifth Plan, involving the installation of a cold rolling mill complex for the production of hot rolled stainless steel was reconfirmed in the August session of the Rajya Sabha as was the decision to proceed with the steel plants at Vijayanagar and

Vishakapatnam. This was necessary in view of the speculation about these projects in light of the tight resource position of the Fifth Plan. Work in Salem is proceeding on schedule and so is the purchase of further land for Rs. 40 lakhs for the Vijayanagar plant. One interesting and disturbing fact that the Union Minister of Steel brought to light is that while it took Japan 24 months to erect a steel plant, in India the time period is 7 to 8 years. When Salem starts production in 1977, it will be a seven years gestation period. Here is an area where MECON and the Ministry itself should go to work to halve the time period taken for the erection of our steel plants. It is not as if the additional time involves eliminating waste. We are really having both—a long gestation period followed by waste, inefficiency and low capacity production.

Neyveli :

In addition to the second mine cut at Neyveli discussed in the last two issues, there is an immediate problem to increase lignite production from the existing mine and raise the price of urea as has been done for power recently. The current lignite output of 3.6 million tonnes is being increased to 4.5 million tonnes in 3 years from 1973 to 1976. But this is not enough to meet the lignite needs of the 3 plants even after the oil firing of two 50 MW units in the thermal plant. What is needed as pointed out in Vol. III page 504 is to plan to further increase lignite production to 6.5 million tonnes and for this a decision to invest Rs. 30 crores in equipment and machinery must now be made. If in addition to this the technology of the urea plant is updated and its price raised to normal levels, the Corporation will be a paying proposition. Its accumulated loss of Rs. 58.5 crores until March 1973 is the result of the ad hoc measures taken in the past to deal with a complex set of problems. Now if these two measures are taken this loss can be amortized and paid off during the Fifth Plan period.

Kalpakkam :

The Kalpakkam project time schedule is affected by two developments. Canada's refusal to supply nuclear components and materials because of India's refusal to sign the Nuclear Non-proliferation Treaty will affect the time path and the cost of the Kalpakkam Plant. The two Kalpakkam reactors are intended to produce 400 MW of electric power. Now the first unit which was to be commissioned in 1975 will not go into operation till the end of 1976. Since Canada will not be supplying equipment such as primary heat transport pumps, these are now being bought from France at a much higher price. The cost of the first unit has therefore risen from Rs. 62 crores to Rs. 77.1 crores. The second unit which was to be ready by 1976 will now not be ready till 1979 and its estimated cost of Rs. 70.63 crores will also go up because of the Canadian decision. The other development is that the fast breeder reactor at Kalpakkam will not be aided by the Soviet Union because its technology of fast breeder reactor which is the most developed in the world as demonstrated in its first commercial plant at Shevchenko is different from that being used at Kalpakkam. The Kalpakkam plant fast breeder test reactor is being built with French aid and modelled on French fast breeder technology. The Kalpakkam plant will receive Soviet help in sodium technology which is essential as a coolant and in safety control techniques—in both of which Soviet Union is ahead of all others in the world.

Yarn and Handlooms :

In early August the Union Government announced the decontrol ot the distribution of yarn counts upto 40s, so that 70 per

cent of all yarn is now no longer controlled in distribution. In fact the distribution controls are in a bit of a mess as the mills have obtained a stay of operation of the yarn distribution and price control order. Now the government should move further and decontrol the distribution of all yarn below 60s and allow the prices to be determined by the market. As all mills in the State and the South have begun working 3 shifts, the supply of yarn is increasing and flowing into the market where the black market and control prices are about the same. For the coarse counts the prices in the free market are below controlled prices. In the case of finer varieties, black market prices are double control prices and here the mills will accept controls provided the control prices are raised. The government is continuing with price control because of the plea of the weavers and the exporters. Handloom exports of which 60 per cent emanate from Tamil Nadu and Kerala face a real problem as pointed out on pages 580, 581, of the last issue. Exporters are not accepting export orders for handlooms after September 30 because the 20 to 30 per cent cash incentive may not continue after that date. They claim their costs have gone up by 30-40 per cent in the last six months due to high black market prices of yarn, dyes, chemicals and rising wages. Using the court's stay orders, the mills are not meeting the textile commission's allotment to export oriented handloom weavers. Because of the devaluation of the U.S. dollar, U.S. textiles are replacing Indian handlooms in our main export markets, Japan. Europe, and Australia. For the period April-June 1973, Rs. 8.96 crores handloom exports which is lower than that for the 3 months in 1972 (at 9.54 crores) may be made up because of the larger exports of ready made garments from this State. Despite the yarn constraints, exports for the year may be 10 per cent higher than last year's Rs. 43 crores. However a clear export policy must be developed to keep and expand our export markets. In the case of handlooms and the reservation of sarees and dhoties for this sector which this State has been urging for some time now, the Union Government recognises the soundness of this position and is developing an integrated textile policy which will decide whether the reservation will cover both quantity and quality of the types involved, whether the area of reservation should be increased taking into account the demand pattern for textiles and whether in that case the greater part of mill textiles production should be exported. The Fifth Plan anti-poverty programme with its imperative consumption restraints demands such a clear textiles policy. In the meanwhile the State Government has reluctantly accepted the Union Government's plea that the State's yarn production should be used to meet only partly the State's handloom weavers' demands in order to meet that of the other States.

Silk Shortage :

The scarcity of raw silk and its increased price has decreased silk production in the State and caused unemployment among the weavers. The State needs around 7.5 lakh kilos of raw silk annually which is usually bought from Mysore State. The Government plan to develop the silk industry with an investment of Rs. 4 crores referred to in Vol. III pages 500 and 574 last issue) will not help the shortage affecting 4 lakh weavers this year. There are suggestions to ban the export of cocoon and raw silk to Japan and Korea and import Rs. 5 crores worth of raw silk to alleviate the current shortage. The first task, however, is to bring the price down (the price having risen from Rs. 170 per kilo in 1972 to Rs. 270 in August 1973) through the banks not advancing credit for hoarding and stock piling raw silk.

There is also a certain amount of collusion between mill owners and master weavers which needs to be regulated to order that the State Government's plan in distribute raw silk to the actual weavers on the basis of looms can be executed. The Governments of Tamil Nadu and Mysore need to get together and organise the allocation and distribution of Mysore raw silk supplies to the weavers in the State before any export restrictions on imports are contemplated.

Knitting Industry:

The SIMA survey of the knitting industry in the State brings some new information and useful recommendations with regard to modernisation, diversification, quality improvement and promotion of exports of the products. SITRA will continue as the main R & D arm for the industry. Its knitting division will soon receive a warp knitting machine under the Colombo Plan and this will enable it to complete its work on the production of high speed warp knitted garments Its research on fibres and their influence on the varying processes of textile manufacture is now complete. Now the laboratory results need to be turned into commercial processes for the knitting industry and for this engineering phase both SIMA and the State government development budget must provide the needed finances.

Alcohol:

With the announcement of the government that the State will resume its dry status from next year, the six distilleries with a capacity of 2 lakh litres of alcohol are preparing to switch over to the production of industrial alcohol. The government is not approving the opening of new distilleries. The production of the existing six can be used by the chemicals and plastics industries at 50,000 litres a day rising to 80,000 litres, when the PVC compounds are in full production. This will leave a surplus which will have to be exported to the other states.

SPIC:

The SPIC complex is rapidly coming up and its main ammonia and urea plant will go on steam by the middle of next year. In refreshing contrast to the continuous delays in construction of public sector plants, SPIC is keeping to its time schedules and also ensuring that its suppliers, including the foreign ones, do so The ammonia converter was erected in mid July and the naphtha tank work begun so that the phosphate and acid plants will be commissioned in early 1975. The 500 houses township is coming up with 130 houses ready, the agricultural farm is being extended (see Vol III page 399), the main electric substation with only 5 per cent import content and the systems design developed by its own engineers was commissioned in mid July, the water treatment plant and railway siding will be ready in October and BHEL's off side boiler will raise steam in December. The costs have gone up from Rs. 73.95 crores (see Vol II No 3 page 11) to Rs. 83.24 crores due to the revaluation of the yen and higher tax payments. Till July end Rs. 35.21 crores have been expended.

Leather:

The long awaited quotas for leather exports to individual exporters of semi-processed hides and skins were at long last announced on August 3 in Madras. This, it will be recalled (See Vol III pages 36, 115-117, 189, 261, 353, 423 and 508-509) is a further step in implementing the Seetharamiah Committee recommendations towards a gradual banning of semi-finished leather exports and increasing finished leather exports. The quotas scheme announced operates from 1 August, 1973 and out of the quotas fixed for each individual exporter, 50 per cent will be allowed to be exported for this year. Based on the best year's export between the years

1968-72, each exporter for the amount can export East India tanned reduced by 35 to 57 per cent according to the hide and in the case of chrome tanned 45 to 65 per cent varying with types (with buff hides cut by only 21 per cent). One positive element is that the uncertainty referred to in the last issue (Vol. III page 512) of the Bulletin is now ended and exports can now resume. There is some injustice in these reductions because the exporters who took advantage of the government's four months delay in making the announcement and exported their year's quota will still be entitled to the 50 per cent reduced export quota for the rest of the year while those who did not export anything will still have only the 50 per cent reduced quota. But this is not only the normal price of enterprise, it may be that those who did not export were not able to do so. There is also some differentiation between East India tanners and wet blue tanners which favour the latter. The government has also announced that it is not moving now to canalise all leather exports as the government has not prepared for it nor does it have necessary expertise for it. The STC has in its turn reduced the service charges for precanalisation leather contracts. Now the government should proceed with what seems its decision—to set up a Leather Exports Promotion Council under the Ministry of commerce to promote leather exports and a Leather Development Authority under the Ministry of industrial development, which will help develop the infrastructure for the manufacture of finished leather, including the 15 per cent subsidy. The setting up of 2 bodies is the second best but now that the decision has been made these bodies should begin functioning without further red tape.

Matches:

The match industry in Tirunelveli and Ramanathapuram districts with 400 factories employing 40,000 workers has been facing a serious problem because their monthly 100 tonnes chlorate needs to produce matches have been met only to the extent of 50 per cent. The chlorate suppliers are the Mettur Chemical and Industrial Corporation which closed down its chlorate unit during the power cut, WIMCO, Bombay and Travancore Chemical Manufacturing Company, Travancore. The most seriously affected are the 300 small factories who have had to close down or work for 2 or 3 days a week. It is essential that the raw material should be ensured for this small but important activity—which is in effect a wide spread cottage industry. If necessary there should be a temporary import of potassium chlorate to get over the shortfall.

Agro-Industries:

The Tamil Nadu Agro-Industries Corporation report for 1971-72 has pluses and minuses. It engaged in the import and sale of tractors, spare parts, and hire purchase service of indigenous tractors. A tractor hire cum service centre at Salem and four subcentres at Ponneri, Maduranthagam, Thiruvannamalai and Theni have helped farmers in the district with tractor hiring, servicing, and repair facilities and spare parts. It imported 775 tractors as against 760 last year. Its net profit was Rs. 21.63 lakhs but after paying taxes and providing for depreciation and development rebate, all units except Tiruchy and Salem suffered losses which amounted to Rs. 8.69 lakhs (which however was half the previous year's loss). In view of the revenue from its drills being Rs. 1 2 lakhs against their maintenance cost of Rs. 7.35 lakhs, it is good that this section is being wound up and the drills transferred to TWAD which can use them efficiently. For this year the Corporation is embarking on an expansion production of badly needed pesticides (Rs. 125 lakhs), marketing fertilisers (Rs. 200 lakhs) and the

manufacture of cage wheels and disc barrows at its Kancheepuram unit and a variety of agricultural implements at the Guindy industrial estate. It should cut back on its losing operations and aim this year at a break even record.

Tamil Nadu Industrial Investment Corporation:

In contrast to the last report analysed in Vol. III page 113 of the Bulletin, the report of the Corporation for the nine months, July 1972 to March 1973 is depressing. The net profit of the Corporation before tax declined from Rs. 38.91 lakhs to Rs. 12.74 lakhs and after tax to Rs. 6.02 lakhs which was insufficient to claim the income tax benefit and pay the minimum dividend of 3 per cent. This was due to 2 companies not paying dividends and two others not declaring their dividends before 31 March. The Corporation has asked the State Government and IDBI to forego their dividends again this year as was done last year. The State Government has agreed to the request. Another negative element was the serious decline in the disbursements of assistance. The Corporation actually mobilised Rs. 220 lakhs from the market and because of the lack of disbursement, there was the problem of surplus funds and their profitable deployment. It is hoped that this year many of the projects in gestation will come on stream and use the assistance. On the positive side, the Corporation increased its assistance to industries in the backward areas from 287 the previous year to 334, including 182 small scale industries compared to 127 last year. Also the Union Government and the RBI have negotiated an IDA loan for the Corporation so that it can import machinery for the medium and small industries speedily. It is hoped that this year's record will show a revival of industrial activity in the State and in the Corporation's functioning.

Private Sector Reports:

The annual report of SIMCO for the year ending 31 March 1973 is encouraging, despite the power cut, cost escalation and demand fluctuation problems faced by the Company. Its R & D provisions which amount to 1/3 of the paid up capital of the Company (an aggregate of Rs. 12.26 lakhs) is one of the most far sighted acts and what is unusual is that it has paid off even in the short run. It has developed and helped in commercial manufacture of a whole range, power factor meter, has produced an import substitute maximum demand indicating meter now being tested and has made available to the defence services prototypes of professional air variable capacitors. Last year's R & D provision was only a modest Rs. 3.7 lakhs but here is an example for all firms to follow. To cushion itself against future power cuts, the company has ordered a 550 KVA diesel set from the GDR in addition to the standby 60 KVA diesel set procured internally. The demand for meters and the acceptance of the delivery on time now makes the activities of the State Electricity Boards, and the turn over of the company has therefore been good. It has also secured an export order for single phase meters from Ceylon which will be met by the end of the current year. Its diversification programme has done well as the turnover of its side lines production has increased by 159 per cent. The current year should be an even better one for the company so well and wisely managed.

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IV. Education Science and Health

Unrest in Educational Institutions :

Of the 13 incidents of violence and unrest in University institutions reported in August, in Ludhiana, Patna, Annamalai, Delhi and Madras, five were due to clashes between rival students. This is election season for student unions and the elections are increasingly taking on the character of parliamentary elections. Delhi University takes its student elections even more seriously than election to the Delhi Corporation. It has abolished the system of electoral college of supreme councillors because the system is reported to be misused for bribery and corruption. Now the president and officers are to be directly elected by the 50,000 student body. A third of the colleges are not affiliated to the student union but even so no student can reach his voters without the backing of a moneyed organisation. The three parties involved full scale in the University student elections are the Congress, the Jan Sangh and SSP. In this State it is the Congress (0) and D.M.K. with C.P.I. following. As a result, during and after the elections, student groups clash, fight and injure each other and the police intervene with shooting and arrests. In four Universities (Coimbatore, Patna, Delhi and Annamalai), the violence was due to the clashes between students and transport men—the buses or railways. These were not cases of inadequate transport facilities but wanton disputes between student groups and the transport men. In two cases (Vijayawada and Agra), the violence erupted as a result of the examination system. In Vijayawada it was reported to be due to the fact that the teachers who had in return for student support of their strike, see last issue (Vol. III page 583), "promised to wink at copying" in the examinations broke the promise: the teachers denied making the promise. In Agra, the report was that the college authorities employed goondhas and beat up the students who boycotted the examinations. In the other two cases in Indore and Salem backed by a group in Madras, the violence was due to clashes with the police. The higher education system is in need of change and there is as yet no move in that direction.

Educational Reform :

Following the experiments in Andhra Pradesh which has made promotion automatic upto the 7th and later from 8th to 10th standard, and Kerala which promotes 90 per cent of students in the primary and 80 per cent in the secondary school, the Mysore State has abolished standards I to IV at the lower primary school level and treats the four years as one class where every subject will be broken down into units and the students' attainment in each unit will be assessed, the student moving from one unit to another depending on his performance. This is yet another commendable move to deal in part with the problem of wastage which in Mysore with a 99 per cent enrolment in 1972-73 is 60 per cent by Standard IV. The Mysore State experiment is being undertaken by the State Institute of Education and will be tried out in 10 schools around Bangalore. Tamil Nadu should now follow the other 3 Southern States in introducing this kind of educational reform to deal with the educational cause of wastage and stagnation. But the problem of wastage is not purely educational. The educational reform is necessary but it is not sufficient. And so too the educational decision to extend the midday meal coverage in Tamil Nadu and Mysore and provide free text books, uniforms, and attendance scholar-

ships for girls is necessary but not sufficient, because the students attend school for the midday meal and then go on to work for their parents hunger free. As long as there is mass poverty in our states these school reforms must be supplemented by an out-of-school education programme which will allow the children to work with and for their parents and study at the same time. This at least is what the priority for elementary education in the Fifth Plan which all ministers, educators and ecomomists have agreed upon should mean. In this State 25 schools have been selected in each district where a kind of internal assessment involving assessing a student's character, reading habits, handwriting and sports activities is being undertaken. This is good provided the examination system is replaced or down-graded. Meanwhile the revision of the secondary school syllabus is being held up, as a deadlock has developed between the government and the University over the duration of the school and college courses. The government has also decided to promote 9000 secondary grade teachers who are occupying higher grade teacher posts to secondary grade posts, making a total of 33,500 secondary grade teachers. This much needed act of justice will, it is hoped, result in the improvement of teaching quality. In the University area, there is an ambivalence. On the one hand the Union Planning Commission and the Union Education Ministry are agreed that University education should receive lower priority in the Fifth Plan. The Tamil Nadu Planning Commission has recommended (see Vol. II No. 9 page 28 of the Bulletin) stabilising University enrolments at current levels for the Fifth Plan and opening no new colleges during that period. On the other hand there are proposals to start eleven new Universities this year under consideration by UGC as well as the opening of several new colleges. By themselves most of these Universities are simply upgraded existing colleges and will involve only higher administrative costs. The more serious problem is the proliferation of arts and science colleges in all States including this State. The Union Planning Commission's Committee on University education makes a bow to the slogan that selective admission to the University will shut out the poor classes from higher education. This is not understandable because all proposals for selective admission propose selective admission on the basis of merit to the upper and middle class students and admission with generous scholarships for students from the poor majority. The issue is to stop expanding admission because as the committee poinsts out it leads to overcrowding of colleges, dilution of standards, increasing unemployment and State subsidy of higher education for which there are no resources in the economy. What happened now is illustrated in the Nandanam college where students went on a hunger strike because the college has been without laboratories for a year and a half (see Vol. III page 584 of the Bulletin). But if the policy of selective admission offends (in a wrong manner) our egalitarian commitment, it can be dropped provided the Committee's recommendations are really and strictly followed, namely (a) vocationalisation of post-matric (one should add prematric and matric) education enabling the majority of students to neter the employment market; (b) changing public sector recruitment policy including that of nationalised banks so that higher education is not made a condition for employment; (c) providing for entry to higher education at different points in the post employment career of a person; (d) making admissions to colleges on the basis of merit with concessions to the weaker sections of society, and (e) opening evening colleges and correspondence courses so that there are additional chan-

nels of higher education open to aspirants, so that 50 per cent of new enrolments are in regular colleges, 20 per cent in evening colleges, 20 per cent in correspondence courses and 10 per cent allowed as private students. This combination of in-college and out-of-college education is precisely what is proposed in the State Planning Commission's educational plan (See Vol. II No. 9 page 27) so that "admission facilities are available to all aspirants for higher education, it does not place an undue strain on regular institutions and be instrumental in further dilution of standards" as the committee points out. It is to be hoped that this State will make a start on this much needed policy. The Tamil Nadu Education Minister calling for a revolutionary change in the educational pattern in early August, proposed that 4 or 5 colleges should be established as Autonomous Colleges to improve courses and curricula. He pointed to the rigidity of the current prototype syllabus and examination papers in all the 182 colleges in the State which curtails the growth of new knowledge and educational and social perspectives of the educational community. One of the city colleges is getting its students to work in Inchambakkam, a village 15 km away to improve the health, educational and social-economic conditions in the village. Voluntary agencies are helping colleges in the State to undertake such development programmes in order to bring some reality into their studies. The programme includes building a comprehensive preventive cum medical centre, desilting wells and the development of handicrafts. The educational programme in the State could more effectively use the radio facility, which is wide spread. In the State there are over 13 lakh receiving sets which is the third highest in the Country. For this, teachers have to be trained and literacy workers oriented.

Technical Education:

The performance of technical institutions at the diploma and degree levels in the State and in the other Southern States is to be evaluated and on this basis their further growth and development is to be organised, according to a decision of the 39th meeting of the Southern Regional (Technical Education) Committee. During the Fifth Plan the emphasis will be on consolidation of existing institutions, improvement of standards and diversification of courses. In the I.I.T. the Rs. 1.5 crores digital computer gifted by Germany (See Vol. II No. 1 page 10) has been installed. It will be used for training engineers in computer application and be the basis of industrial research in the State and Region. The Technical Training Institute, Madras has made notable progress in developing a wide variety of teaching equipment, demonstration kits and models for use by the polytechnics and engineering colleges. They include the automatic feed back system operated with a teacher's console and a response unit for each student to determine how far the teacher is attaining his instructional objective, enabling him to correct his methods by student reaction as he goes along; the audio-tutorial system which with individual cubicles stacked with books and audio-visual aids individualises instruction according to the learning path of each student; a class room demonstration trolley in physics which provides all the demonstrations and equipment in pure and applied physics: a power generation trolley etc. It is necessary that these important learning aids be commercially produced for use in all polytechnics and science departments of universities. The State itself provides too small a market for such commercial production. The U.G.C. and the All India Council of Technical Education can help to provide a

wider market for these essential aids. Another set of institutions which is developing rapidly are the women's polytechnics in Madras, Madurai and Coimbatore. Apart from dress making, costume designing and commercial courses, training in electronics, instrument technology, architecture and data processing is becoming popular and attracting a number of women polytechnicians. As analysed in Vol. III pages 269, 358, 429 and 586 of the Bulletin, ICAR has decided that the Tamil Nadu Agricultural University will open this year the first agricultural polytechnic in Pondicherry. The polytechnic will train extension staff for the departments of agriculture, animal husbandry and fisheries and provide functional literacy programmes to farmers. It is hoped that the polytechnic will also train Agricultural teachers for the comprehensive schools to be set up in the State.

Science:

The last two working groups of the Tamil Nadu Science and Technology Perspective Plan—Industrial R & D and Educational Research—completed their work towards the end of August and the draft science and technology plan was completed and circulated to members of the committee who at their meeting at the end of September will establish the plan. For the NCST the panel on chemical R & D has formulated a long range plan for in-plant research in the Fertiliser Corporation, Indian Petro-Chemicals, Indian Drugs and Pharmaceuticals, Hindustan Anti-biotics and Hindustan Chemicals at a cost of Rs. 26.7 crores. These proposals include investment in pilot plants and semi-commercial size plants and design development expertise. There is a plea in the plan for the private chemical plants to develop their own R & D programmes in the interest of developing technological capability and self reliance. As analysed in the last issue of the Bulletin (pages 587-588) the Union Planning Commission had discussed the Fifth Plan science programme calling for an outlay of Rs. 178 crores. Rs. 68 crores are for existing organisations like the Survey of India, the Botanical and Zoological Surveys and the balance for setting up a science and engineering commission, oceanographic agency, and several corporations. The CLRI during the Fifth Plan, following the government decision to shift to finished leather exports, will develp indigenous leather chemicals and fabricate sophisticated machinery needed for finishing processes of leather. Among other R & D programmes, India Tobacco's Rs. 50 lakh Research Centre started functioning in Bangalore. It will concentrate on all aspects of the industry including printing and packing and is moving into the area of marine products. The industry which used to import 80 per cent of its materials is now self reliant and this Centre will further improve the tobacco quality in the Country. India Oils Rs. 5 crores R & D Centre is to be located in Delhi in order to take advantage of the Dehra Dun Institute, the Lucknow railway designs Bureau etc. The equipment for the Centre is now on order. The Country has now an improved electronic digital calculator in 14 M with six functions and a 14 digit memory bank. Manufactured by Superior Electronic Systems, it costs Rs. 6,450 compared to the imported calculators which cost Rs. 10,000. NDRC announced in mid-August awards for 28 inventions by 47 scientists: Among the highest awards have been those to the transistorised gear box controller and the beehive oven. The Gajendragadkar Committee report exonerates ICAR and IARI of the serious charges made against them by the late Dr. Shah but then recommends that the ICAR should become a department of government, under the title of the Department of Agricultural Research and Educa-

tion. This is a wrong recommendation and must not be acted upon. What is needed for ICAR and IARI is more science and more autonomous scientific life and organisation so that they may serve the agricultural needs and priorities of the Country effectively, objectively and positively. The Government departments are not the place to house science and such a key area of science as ICAR.

Health :

The future of the Chingleput medical college is under discussion. The estimates committee of the Assembly has recommended the gradual closing of the college and its conversion into a college of siddha medicine, using the Rs. 5 lakh donation of Palaniandavar Devasthanam. The Chingleput hospital lacks adequate clinical material and the college has not been recognised by the Medical Council of India. The government for the present has not accepted this recommendation and would like to improve the facilities for the students and see how the public reacts before coming to a decision. The college should be strengthened and brought up to a standard as recommended by the State Planning Commission's plan on health, family planning, nutrition and sanitation (see Vol. II No. 9 page 34). It will be in consonance with the Union Plan for a compulsory internship in rural areas for every M.B.B.S. Tamil Nadu is one of the three states (the other being Kerala and Maharashtra) which have already attained the Fourth Plan target of reducing the birth rate from 39 to 32 per thousand. It can reach the Fifth Plan target of 25 per thousand if given the resources. And so the global approach and pessimism of the Union Planning Commission are wrong and misleading. It may be true that for the Country as a whole the target for the Fourth Plan will not have been attained as the achievement is 35.3 per thousand. It may be that to attain 25 per thousand in 5 years 27.4 million sterilisations, 12 million loops, 13 million contraceptives will be needed. It may be that with Rs. 560 crores only 23 million sterilisations can be effected. But the conclusion to reduce the target to 30 per thousand is technically wrong and economically disastrous. Tamil Nadu and five other States can reach the 25 per thousand target and that is where the resources should be put. It will also snowball to other States. If in addition to this, the health and nutrition programme is strenthened, the target will be attainable by the Country. This is no time to reduce this programme financially. If the birth control vaccine which prevents pregnancy now being developed at the AIIMS and if the pill can be popularised in both rural and urban areas, the family planning programmes can be strenthened. There is need for more R & D work on the pill to remove its after effects. The six year project on oral contraceptives of the National Institute of Family Planning shows that the pill is used only in urban areas and only by 30 per cent of the starters. The main reason is the after effects, nausea, dizziness, bleeding etc., which need further research. The other obstacle to family planning is death due to malnutrition of a million children a year according to the Union education and social welfare ministry. The Rs 18.78 crores budget for this year for nutrition of expectant mothers and school children is quite insufficient as it covers 32 lakh children out of 12 crores who need this programme. Here it is necessary for this State to follow Kerala's example which has developed a processed food called Kerala Indigenous Food combining 70 per cent of tapioca and 30 per cent groundnuts, vitamins and minerals. It is through this kind of programme that we can meet our large needs, particularly as foreign aid, CARE, World Food Programme etc. will

shortly cease. Another recommendation on which the government should act is that of the estimates committee of the Assembly for the formation of a separate Drugs Testing Laboratory and the setting up of a separate Drug Directorate for this purpose. With increase in the number of spurious marks and adulterations, the samples drawn by drug Inspectors become imperative.

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V. Employment

CSIR's Bulletin Technical Manpower in its three recent issues — Vol XV Nos. 4, 5 & 6,—set forth a series of important computations with regard to graduates and technical personnel, their unemployment and their self employment by States. The light that these estimates throw on the graduate manpower situation in each State and the guidance they provide for planning the education and training system in each State during the Fifth Plan are of considerable significance. The estimates are arrived at using three sources, the 1961 special census of scientific and technical personnel, the 1971 special census of the same, and the graduation statistics from each State. The data base raises the usual problems of inter State comparability and reliability except in the case of the data of State graduation. Even in this last case, it cannot be assumed that those who graduate from a State stay and work in the State. Allowing for all this the estimates are valuable guide lines. All the estimates are as of April 1971.

The estimates of graduates and technical personnel for Tamil Nadu are set forth in terms of (a) the percentage of Tamil Nadu personnel of the All India Personnel and (b) the absolute numbers of each category under the percentage wise distribution of each category. Tamil Nadu's percentage of graduates in terms of the All India totals is:

Engg & Tech.		*Science (Post-Grad.)*		*Science Grad.*		*Med.*	*Arts*		*Commerce*		*General*
Deg.	*Dip.*	*Gen.*	*Agri.*	*Gen.*	*Agri.*	*Deg.*	*P.G.*	*Grad.*	*P.G.*	*Grad.*	*population*
10.0	10.0	6.0	4.0	12.1	7.0	9.1	2.5	5.0	4.0	5.3	7.5

In percentage terms, the State stands second in the Country in degree and diploma engineers (Maharashtra being the first at 15.12) and in science graduates (UP being the first at 12.1). Its percentage in graduates and postgraduates in arts is rather low in the 10th place, which is good in terms of the employment market. It has the same ranking in graduate and postgraduates personnel in agricultural, which is an area where a further effort should be made.

In terms of absolute number of graduates the Tamil Nadu stock is:

Engg. & Degree	Tech. Dipolma	Science (Post-Grad) Gen.	Agri.	Science (Grad) Gen.	Agri.	Med. Degree	Arts P.G.	Grad	Commerce P G.	Grad.
18,540	24,440	8,350	540	50,820	3,300	8,900	9,750	56,940	1,750	14,190

The unemployment profile of the State is also presented in terms of percentage of graduate unemployment in the State vis a vis All India graduate unemployment.

Engineering & Medicine

Engg. & Tech. (Deg.) Total Unemp.	Seeking Emp	Engg. & Tech. (Dip) Total Unem	Seeking Emp	Medicine (Deg.) Total Unemp	Seeking Emp
10·08	9·55	12·36	11·77	2·72	2·31

Sciences

General Science (Post-Grad) Total Unemp	Seeking Emp	Agricultural Science (Post-Grad Total Unemp	Seeking Emp	General Science (Grad) Total Unemp	Seeking Emp	Agricultural Science (Grad) Total Unemp	Seeking Emp
14·56	11·31	—	—	24·35	18·62	1·33	0·64

Arts & Commerce

Arts (Post-Grad) Total Unemp	Seeking Emp	Arts (Grad) Total Unemp	Seeking Emp	Commerce (Post-Grad) Total Unemp	Seeking Emp	Commerce (Grad) Total Unemp	Seeking Emp
12·67	8·06	22·00	15·23	4·56	4·16	13·53	11·96

The absolute numbers who are unemployed in Tamil Nadu by discipline are: Engineering and Medicine

Engg. & Tech. (Deg) Total Unemp	Seeking Emp	Not Seeking	Engg. & Tech. (Dip) Total Unemp	Seeking Emp	Not Seeking	Medicine (Deg.) Total Unemp	Seeking Emp	Not Seeking
1,869	1,771	98	3,021	2,877	144	242	206	36

Sciences

General Total Unemp	*Science Seeking Emp*	*(Post-grad) Not Seeking*	*Agricultural Total Unemp*	*Science Seeking Emp*	*(Post-grad) Not Seeking*
1,216	942	274	—	—	—

Sciences

General Total Unem	*Science Seeking Emp*	*Grad Not Seeking*	*Agricultural Total Unemp*	*Science Seeking Emp*	*(Grad.) Not Seeking*
12,375	9,463	2,912	44	21	23

Arts

Total Unemp	*Arts Seeking Emp*	*(Post-grad) Not Seeking*	*Total Unemp*	*Arts Seeking Emp*	*(Grad) Not Seeking*
1,235	786	449	12,527	8,672	3,855

Commerce

Total Unemp	*Commerce Seeking Emp*	*(Post-grad) Not Seeking*	*Total Unemp*	*Commerce Seeking Emp*	*(Grad) Not Seeking*
80	73	7	1,920	1,697	223

Tamil Nadu has no unemployed agricultural post graduates, a negligible number of agricultural graduates (the lowest) unemployed, and stands 12th in all of 19 States in the engineering (degree and diploma) as well as commerce graduates who are unemployed. Commerce post-graduate unemployment ranks low at 4th in the Country. It is general arts and science graduate unemployment that is serious where we have the 8th highest rank in the Country with a total of nearly 25,000. Thus of the total of 34,529 of all graduates and post-graduates who are unemployed, 5/7th, that is 24,902, are BAs and BScs. This is the case for stabilising admissions to the general arts and science courses and not opening new colleges. There is the problem of creating employment for these unemployed graduates. The priority in the 5 lakh educated employment generation programme is engineers and technicians employment and to some extent some of the science post graduates. This is right because the investment on them is the highest and their unemployment is a sizable

waste of the Country's resources—human and financial. The problem quantitatively is serious for the BA and BSc and for these employment creation has to be either by expanding social services for which we face resources constraints or through self employment. In a recent ILO study of Calcutta's unemployment situation, the recommendations made include (a) the creation of an urban youth services corps in which lower salaries than the normal would be acceptable and considered desirable. This will absorb some of unemployed BAs and BScs. But as the experience in this State shows, resources are limited to creating a massive youth corps programme which can absorb the 25,000 unemployed BAs and BScs; (b) intensifying agricultural production with the new technology so that the agro-service centres and engineering facrories and workshops can employ more scientists and technicans: (c) expanding the primary adult education programmes to absorb some of the BAs and BScs. These demand expansions should be planned and executed, while at the same time supply of graduates is reduced through vocationalisation of secondary education.

The CSIR estimates of self employed graduates is based on the 1971 special census. For Tamil Nadu the percentage of self-employed by speciality in terms of All India self employed is :

Self-Employment

Eng. & Tech. (Deg) PG+G	*Eng. & Tech. (Dip)*	*Med. (Deg) PG+G*	*PG Scs Gen.*	*PG Scs Agri.*	*Genl. Sc. Grad.*	*Agr. Sc. Grad.*	*PG Arts*	*PG Com.*	*Grad. Arts*	*Grad. Com.*
6.55	3.58	23.69	3.66	1.01	5.86	3.02	10.10	25.74	12.58	10.74

In total numbers, the self employed by speciality are :

Engg. & Tech. (Deg) PG+G	*Engg. & Tech. (Dip)*	*Med. (Deg) PG+G*	*P.G. Genl.*	*Sc. Agri.*	*Grad. Genl.*	*Sc. Agrl.*	*P.G. Arts*	*P.G. Comm.*	*Grad. Arts*	*Grad. Comm.*
1,214	875	2,108	306	5	2,978	100	985	450	7,163	1,524

This table can be used as a barometer of the spirit of enterpreneurship in the State. From this point of view, Tamil Nadu stands third in the Country with 8.97 per cent of our 1,97,520 graduates and post graduates self employed (Maharashtra being first with 10.41 per cent and Gujarat the second with 9.51 per cent). The most adventurous in India are our commerce post graduates and Arts graduates who stand first in the Country in self employment. This is encouraging given the large numbers of our unemployed BAs. The MAs are also good at seeking self employment, being surpassed only by the Bihar MAs (14.56). Our engineers have the 3rd rank in self employment in the Country but it is a very poor third as Maharashtra is nearly double at 12.24 per cent and Gujarat at 10.77 per cent. MScs are also not bad in the All India ranking — 4th though it is a small proportion who are

venturesome. The diploma engineers are surprisingly unenterprising with the 7th place among the States and at about half the rate at which engineers are self employed. The self employment profile of our commerce graduates and science graduates is very poor (holding 11th and 10th rank among the States), followed bymedical graduates who seem to have a low self employment drive (lower than Maharashtra, West Bengal, Gujarat, UP and Andhra Pradesh in that order).

The number of job seekers registered in employment exchanges continues to rise. On May 31, 1973 it stood at 74 lakhs, with parallel increases in the number of educated job seekers. Meanwhile a familiar source of escape from joblessness—which is research or advanced studies after the post graduate degree—is brought to light in the 1971-72 report of IIT, Kharagpur. There only a third of the graduates went into industry, the rest going in for advanced studies, particularly abroad. The question is posed whether many of our top engineering graduates from the IITs are spending the most creative years of their lives abroad, where in the milieu of an advanced economy they are able to get greater job satisfaction. How many of the IIT graduates are helping to modernise and improve engineering education in the colleges and polytechnics was another question posed. These issues are of course related to the high cost and subsidy of the IITs to which reference was made in Vol II No 9 page 55 of the Bulletin. That all is not well with the implementation of the 5 lakh educated employment generation programme is shown in a report from Andhra Pradesh where the initial enthusiasm of the self employment schemes has come up against a series of procedural bottlenecks as well as obstacles inherent in the scheme. On July 9th, at a convocation for jobs the Adviser to government gave tentative "letters of sanction" of loans by banks to 702 unemployed graduates setting August 15 as the dead line for completing formalities and December 15 for starting the schemes. Under the schemes, the graduate provides 10 percent of the cost of the scheme, the government a further 10 percent and the bank 80 per cent. 3,500 unemployed graduates registered themselves in the programme and the Department of Industries forwarded 174 applications with all formalities complete to the banks in Guntur and 680 to the banks in Vijayawada. As of mid August, banks in Guntur had sanctioned loans only to 11 schemes and Vijayawada banks to 15. The problems are as noted earlier, complex. On one hand banks are cautious, have to check on the credibility of the applicant and the feasibility of the project. Many of the applications have not been carefully checked by the Department which does not have the staff for this enormous additional task and the banks are not staffed for it either. The applicants and district authorities blame the banks for lack of interest and good faith. The banks point to their public responsibility for public moneys. Under these conditions, it is necessary for a joint unit consisting of the government department and the banks to be established to help draw up projects, screen applicants and undertake the planning of the schemes from the earliest phase. The banks cannot be expected to back a project speedily unless they have been on the planning from the initial stages. That at least was one of the morals drawn from a meeting with the banks organised by the State Planning Commission to promote this programme in this State (see Vol III page 520)

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VI. Other Items

ICSSR Review Committee:

The eighth session of the ICSSR Review Committee met in New Delhi on August 23, 24 & 25. The Committee met Mr. C. Subramaniam, Minister for Industrial Development and Science and Technology and heard his views on the Fifth Plan priorities for social science research, the relationship of the ICSSR to the work of the Science and Technology ministry, the means of financing social science research in the Country as well as the level of financing. The committee spent the 3 days reviewing and revising the draft report of the Committee prepared by the member secretary Dr. Abel. It reached agreement on the analysis of the status of social research in the Country and its future direction, the assessment of ICSSR's past functioning and recommendations for its future—particularly during the Fifth Plan. On this basis, the draft report will be finalised and approved at the ninth final session of the committee at the end of September.

Committee of Area Studies and International Relations:

ICSSR's Advisory Committee on Area Studies and International Relations through its two sub-committees meeting in August drew up project plans for the publication by ICSSR of a half yearly journal and agreed on its advice to the government on a number of bilateral agreements referred to it. It was decided that the ICSSR should publish a journal of Asian studies and for this purpose a Board of Editors with Dr. P. Verma, Professor of Area studies, Rajasthan University, Jaipur, as chairman along with five members were appointed. The Jawaharlal Nehru University was requested to take responsibility for printing the Journal. It was also decided to request ICSSR to help in the formation of a professional association in this field, with the understanding that the association will take over responsibility for the Journal. Four bilateral agreements between India and four other countries were reviewed and suggestions were made to the government, as requested by it, on the social science exchange clauses to be included in the agreements.

Maharashtra-Unesco Committee:

At a meeting of the Maharashtra-Unesco executive committee on August 22nd, it was decided to request the Indian National Commission for Cooperation with Unesco to sponsor a resolution at the next general conference of Unesco for an international campaign to conserve Ajanta. The rapid deterioration of Ajanta frescoes due to the sun and rain and lack of care was discussed. As Unesco is conducting international campaigns to save Borobadur (Indonesia), Ankor Wat (Cambodia), Mohenjodaro (Pakistan), Bamian (Afghanistan), Carthage (Tunisia), Venice (Italy), Philae (UAR), it was decided that the conservation of Ajanta should be added to this list of monuments.

Tamil Nadu-Unesco Committee:

The Tamil Nadu Unesco committee met on August 28th to review the working of the International Institute of Tamil Studies. The progress made in the publication of the Journal the selection of fellowship holders, the receipt of the language laboratory from Unesco were discussed. It was decided to finalise the Five Year Plan for the Institute for the research and training in language, culture

and archaeology. The governing body was requested to appoint a Tamil Nadu scholar as director and a foreign Tamil Scholar as programme director for serving 3 to 4 months each year. 3 or 4 names were forwarded to the governing board. Unesco's annual aid will be used to finance the cost of the programme director, 2 fellowships for foreign scholars for 1-2 months study at the Institute, and for the purchase of books.

Forty Fifth ANZAAS Congress :

The 45th congress of the Australian and New Zealand Association for the Advancement of Science was held in the university of Western Australia, Perth, from August 13-17. The congress had 31 sectional meetings and 12 intersectional symposia. The economics section devoted a considerable part of its discussion to dealing with the problem of inflation in Australia and by the end of the congress helped the economists of the country to move towards a consensus on the causes of inflation and the advice to the government to contain it. The rate of inflation in the country is running at around 8 per cent, and the main causes are consumer demand being well ahead of production, full employment and fiscal and monetary policies. It is around these factors that remedial action was being discussed. The congress was an opportunity for multi-disciplinary discussion of problems by natural and social scientists. The major themes which were discussed in interdisciplinary symposia included the environmental crisis, immigration policy, manpower planning, science policy, clash of value system and Australian aid to Asia. Two papers submitted to the last two symposia by the Director of the Institute appear as the second articles on pages 537 and 599 of Vol. III of the Bulletin. In addition, a public lecture was organised on the theme, Economic Growth versus Social Justice in Development Planning, which provided an opportunity for an interdisciplinary debate on an issue which is of immediate relevance to India and many developing countries. The congress was mainly concerned with Australian scientific, technological and economic problems and was attended by around 5000 specialists and students. It was an effective means of providing a forum for the exchange of views among specialists working in their separate fields. It was less effective in conveying the message of science to the public.

Seminar on the Economics of Education :

The Hindustan Chamber of Commerce organised at the end of August a seminar on the Economics of Education, attended by 300 educators, economists, government officials and business men. It is the first time that such a seminar has been held in the State and probably in the Country. There was a wide measure of agreement on some hard, real and unpleasant facts that the Economics of Education in Tamil Nadu brought out. First it was agreed that education in the State is also an industry and that educational expenditures partake of the nature of an investment and so its economics must be examined. Second there was agreement that the State government is spending on education a large and generous amount of 5.61 per cent of State income and 30 per cent of its annual budget. Third it was also agreed that this investment is being misspent by a low productivity, unemployment including wastage characterising irrelevant education system. The Minister of Education's Valedictory was the clearest statement in this regard. Fourth there is need for reconstructing the system, vocationalising education and improving the quality of teaching and learning. Finally the private costs of education

should be raised and the Government costs lowered by making higher education fee based with a generous system of scholarship for the students from the poor majority. The presidential address of the seminar appears as the second article in this issue. It is hoped that the seminar has helped to spark the moment for educational renovation and change. The seminar also decided to establish a National Association of the Economics of Education and invited the Chairman of the Institute for Techno-Economic Studies to be its chairman and the Director of Madras Institute of Development Studies to be its president.

Association for Hospitality:

Madras has some 700 foreign students studying in its various Universities and colleges. Most of them are studying engineering, technical and science subjects. Some of them are studying Indian music, dance and drama. The Association for Hospitality Madras organised an evening of lecture discussion and music for the Committee of hosts and the foreign students. The discussion centred on the problems faced by foreign students in Madras — in food, accommodation and transport, and their appreciation of the opportunities to get to know Indian families and home life and the facilities provided by the Committee of hosts. The latter consists of a group of enthusiastic young wives who bring to the task high standards of efficiency, care and understanding. The music programme which followed was provided by both Indian and foreign students.

World University Service, Madras:

The Madras Committee of the World University Service celebrated its annual day on September 1 in the imposing WUS centre building gifted by the Danish WUS in 1970. The Centre houses 100 students selected from the different colleges in Madras and runs a good hostel and restaurant service. The Madras WUS has an extensive education programme, social affairs activities, social and cultural programme and a student medical service. At the anniversary celebrations this year, it was suggested that next year's programme should concentrate on studying the development crisis of the Country, running an employment bureau for unemployed graduates and organising special compensatory education for first generation entrants into high schools and colleges. The event concluded with a programme of cultural competition in which 15 colleges participated and which probably was the most attractive part of the programme for the student members.

Seminar on Plan Implementation:

The Government deputed four district Collectors Mr. J. Shiva Kumar (Coimbatore), Mr. R. A. Seetharama Das (Madurai) Mr. K. Madhava Sarma (Cuddalore), and Mr. K. Chandrachoodan (Ramanathapuram) to participate in the Seminar to be held on October 26 and 27. The twelve District Planning Officers Mr. T.V. Natarajan, Prof. Ramaswamy, Prof. S. Ramanathan, Dr. M. Abel, Thiru. K. Chockalingam, Thiru. B. Vijayaraghavan, Thiru. K. Venkatesan, Thiru. Lakshminarayanan, Thiru. K.A. Sundaram, Mr. P. C. Mathew Mr. V. Natarajan, Mr. M.S. Dharmarajan, Mr. K.K. Nambiar, Dr. B.V. Krishnamurthy, Thiru. S. Narasimhan, and Mr. R. Parthasarathy were also invited as participants. Working papers from Mr. A.R. Subhiah Mudaliar, Dr. D. K. Bose, Dr. V. Shanumugasundaram, Dr. A. Ramaswamy, Mr. S. Venkatramanan, Mr. J. Shivakumar were received to complete the Seminar

documentation and circulated among the participants.

September Development Seminar:

The paper for the September Development Seminar, 'Social Change,' by Dr. C. M. Abraham, Reader in Sociology, Madras University, together with a summary of the discussion of the paper at the Seminar chaired by Dr. K. K. Pillai Director of Institute of Traditional Cultures, Madras, appears as the first article.

Second Article:

A paper on the 'Economics of Education in Tamil Nadu' appears as the second article.

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SOCIAL CHANGE

By

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"It is impossible for a man to step into the same water twice."

—Heraclitus.

Introduction :

During most of the recorded social history of man and his experience, change was rather a slow process and hence people have apparently considered change per se as undesirable. Social stability has been not only the social ideal but also the normal and healthy condition of a society. In the writings of some great Greek Philosophers we could discern the glorification of stability and depreciation of change.

But the beginning period of the emergence of sociology witnessed great interest in social change. Comte, Spencer, Marx, Tonnies, Ward etc. had sought generalization and natural laws to account for the emergence and decline of great civilizations and for differences in the rate of development between societies. Their attempts to introduce the dimension of time into sociological analysis have produced only particularistic fallacies, such as geographic, biological, technological and ideological determinism. Conceptions of change were typically deterministic, being viewed as a function of some single cause usually exogenous in nature. Other conceptions relied heavily on analysis of historical trends, envisaged stages and/or ideal types which at least implicitly assumed linear evolutionary tendencies. Moreover great reliance was placed on variables and analogies borrowed from biological science.

As empirical evidence failed to support the conjectures, these approaches were generally discredited and apparently discouraged the next ganeration of sociologists from seeking general explanations of social change. Seemingly as a reaction to the difficulties encountered by grandiose conceptions of social change, there was a tendency within sociology during the first half of the twentieth century to postpone questions of change to concentrate rather on descriptions of social order and to record the fact that social change was taking place with little emphasis on identification of sources or elaboration of processes. The implied strategy seemed to be that it was premature to be concerned with sources of change until the structure and processes of various levels of social organization were more fully understood. This position is enunciated by Martindale who suggests that "the description of these forms (social and cultural) is a logically prior requirement to an explanation of them. In other words the theory of change is the capstone of sociological theory." (Martindale Don. Social Life and Cultural Change, Princeton, N. J. D. Van-Nostrand Co. 1962. p. 495).

Thus the great advances in knowledge and understanding of social structure and of the forms of social life, at the expense of advances in knowledge and understanding of the processes by which and the

conditions under which these forms change through time, have discouraged interest in social change and diverted attention from it, till the beginning of the second half of the present century. But the triumphant march of science and technology and the consequent industrialization, urbanization and secularization of societies during the post-war years have produced and are producing the most rapid change that man has ever experienced. Moreover the spectacular developments in transportation and communication, have brought the major cultural groups of the world closer and in constant contact with one another and helped them to achieve political independence and enthused them to initiate revolution in all aspects of their life. Thus science and technology are spreading throughout the entire world at an accelerated pace. The demand for 'radical' programmes in the developing countries symbolises the frustration and impatience of ordinary people who have been denied the simple decencies of life too long. The famous contemporary English Historian Arnold Toymbee stresses this point in the following statement. "Our age will be remembered" he wrote "not for its horrifying crimes or its astonishing inventions but because it is the first age since the dawn of history in which mankind dared to believe it practical to make the benefits of civilization available to the whole human race."

C. D. Deshmukh in his Foreward to Chester Bowles book "The Makings of a Just Society' writes that "the Homo Sapiens, identifiable as a separate species for over a million years, should have seen the dawn of wisdom hardly 18 years ago, is a surprising but nevertheless true fact of history. Enlightened as the last few centuries have been, it has taken three hundred years of scientific and industrial revolution and two devastating world wars for the leaders in most countries of the world to believe it practical to make benefits of civilization available to the whole of the human race...This belief has become the prime mover of the great contemporary global preoccupation with the building up of nationhood and accelerating economic development, following the emancipation of nearly 800 million people and the heady freedom to destroy the old and build anew plucked by the leaders of another 700 million."

Sociologists can no longer afford to ignore the realities in the developed and developing countries of the world. If sociology is to maintain the status that it has so laboriously won and to secure the full social support that is essential to its continued growth, sociologists must attack the study of social change with the same zest and conceptual ingenuity that have characterised the study of social structure, for in the long run the status of sociology will depend upon the ability of the sociologists to provide decision makers, political and otherwise with probability predictions of the consequences to society of various alternative courses of action. (Richard T. Lapiere, Social Change. Preface. P. Vi).

It is imperative that at this juncture, we need be clear on what we mean by social change.

What is Social Change

Broadly speaking there are two kinds of processes going on in a society:—They are:

1. Processes that maintain or tend to maintain the structure. For instance socialization and social control.
2. Processes that tend to change the social structure. This is known as social change.

In defining Social Change, a wide variation can be noticed. In the words of Lund-

berg, social change refers to any observable difference in any social phenomena over any period of time. (Lundberg,et al, 1954 : 670). Roucek and Warren conceive social change as change in social processes or in the structure of society. (Roucek & Warren, 1965, 291) Rogers equated social change to the process by which alteration occurs in the structure and function of a social system. (Rogers. 1060 : 3). According to Hobbs social change refers to a relatively enduring modifications of social structure. In this definition he excludes ecological, demographic and technological changes from the category of social change. (Hobbs 1971 : 10). Mac-Iver and Page consider only changes in social relationships as social change. (1955 :511). Merrill and Eldredge consider modifications in the social structure or the emerging forms of social institutions as social change. They also mention that it is impossible to analyse the structure of modern society, without constantly referring to the changes taking place in behaviour, status, role and the other patterned reactions between the members. (1957: 469). Wilbert Moore's classical definition of social change is that it is the significant alteration of social structure, including conseqences and manifestations of such structures embodied in norms, values and cultural products and symbols. Thus it can be seen that the concept of social change has been given a wider connotation by Moore. It comprises both what is commonly identified as social change with a primarily behavioural focus and cultural change with a primarily symbolic or meaningful focus. (Moore 1967 : 4).

In American society there has been a tendency to confuse social change and cultural change by emphasizing the deterministic character of technology as a primary factor in social change. Williams comments in this regard that "the culture (American) has been characterized by a value system that made it possible for economic and technological activities to change rapidly and hence to take on special causal significance. In other societies and in other times, the role of technology in social change is definitely minor." (William Robins. 1960 : 571).

Again social change is regarded to mean "change in social structure...also includes changes in attitudes or beliefs, in so far as they sustain institutions and change with them". (Ginsberg 1958 : 205) Firth states that the phenomenon discusses "what happens to social structures", but "to be truly dynamic it must allow for individual action." (Firth 1952 : 83).

Merrill and Eldredge state that "In its most concrete sense, social change means that large numbers of persons are engaging in activities that differ from those in which they or their parents, engaged some time before" (1957 : 470). As mentioned by Gerth and Mills, "By social change we refer to whatever may happen in the course of time to the roles, the institutions, or the orders comprising a social structure, their emergence and growth and decline". (1953 : 398). So in the ultimate analysis social change refers to modifications of the way men work, rear a family, educate their children, govern themselves and seek an ultimate meaning in life.

Social change has other implications for social structure. When social change is taking place, persons occupy different statuses and play different roles over a period of time. When we analyse society in terms of its structure, we are viewing it at a particular moment in time. In Barber's words "Social structure merely defines some pattern picked out at one moment from the endlessly continuing process of social interaction." (1956 : 565 - 568). Social change therefore means (a) that given individuals assume different positions in the social structure and (b) that the

positions themselves (for example statuses and roles) are subject to change. The important consideration is the element of time.

Social change has basic implications for a dynamic society. Hence it is important to know the extent of the changes in structure. Social change is the mark of every vigorous society. The task of development and nation building depends on the rate, direction and quality of social change. Social change is a continuous phenomenon and represents a series of "Challenges and Responses".

Sociologists' emphasis on social change at present seems to have incorporated several analytical lessons gained from additional experience in analysis and description of social organization. Along with the analytical perspective has emerged greater attention to what is changing—both in terms of level of social organization and the variables undergoing change. (Hobbs. 1971 : 11). Arnold Rose points out that at present theoretical propositions have typically called attention to sources of change rather than explanation of causes of change. Wilbert Moore suggests for example that, "the most noteworthy progress in the theory of social change has been made in the identification and analyses of the source of change. In very general terms, this progress has resulted from the abandonment of causes primarily external to social system and of single factor explanations, with the correlative of acceptance of imminent changes as the prime mover in social dynamics. (Moore 1966 : page 881). However, most propositions regarding change have been correlational and relational rather than specifying cause and effect and sequences of action leading to specified kinds of outcomes. (Hobbs 1971 : P. 12).

Social Change in India.

From the days of the British rule in India social change has gradually gained momentum and the independence of India paved the way for an accelerated rate of change. We in India are now in the midst of a totally new civilization.

Milton Singer writes of the current status of Indian civilization as 'a great tradition modernizing'. V. K. R. V. Rao observes that a chain of social change has been started in India, that is more massive and national in its dimensions than anything we have seen in the past, so much so that even the appearance of a grand social stability has now begun to fade. Thus Rao is trying to justify the title of Milton Singer's book "When a Great Tradition Modernizes', but he hastens to suggest a sub-title 'The Biggest Social Change in Indian History'.

With the advent of independence, India has started a unique, peaceful and democratic revolution. She has adopted a Constitution upholding the basic ideals of democracy, Viz. JUSTICE, LIBERTY, EQUALITY and FRATERNITY. The goals envisaged in the constitution are entirely democratic in orientation emphasizing dignity of the individual, social justice for all and equality. The constitution guaranteed to all citizens the right to freedom of speech and expression, association, movement and profession, and humane conditions of work for all. Untouchability is abolished. All are considered equal in the eyes of law and are guaranteed the right to equality of opportunity, to own property and be appointed to any office of the State. Thus Part III of the constitution provides for certain fundamental rights to all citizens irrespective of religion, race, caste, sex, place of birth or any them. This is followed by the Directive Principles. The constitution

directs the State to provide adequate means of livelihood for all, and ensures employment and a just distribution of wealth. Also it requires the State to provide free and compulsory primary education for all children upto the age of 14 years. It shall also give relief to the old, the infirm and the unemployed.

The Planning Commission was set up in 1950 to translate the objectives laid down in the Directive Principles of State Policy into a comprehensive programme of national reconstruction.

Thus the architects of our nation wanted a striking departure from the old concepts, values, institutions and methods and unmistakably indicated a social and economic transformation. They were visualizing an individualistic, open-ended society based on the equalitarian ideology. They wanted to transform the caste-ridden, traditional, authoritarian structure with various kinds of superstitions and prejudices to a viable social structure which allows social mobility and encourages self expression and self-development.

The values and the goals have been spelt out as clearly as possible and the stage was set with the help of the Planning Commission and with the passing of a number of laws, to make the citizens of India conform to the new values and goals, rejecting the old values and norms. This has resulted virtually in a conflict between the national values and goals of justice, liberty, equality and fraternity and the traditional Indian values, goals and norms of hierarchy, inequality etc. It is imperative that at this juncture of our affairs, when new science and technology have created the clear possibility of a massive forward thrust, we begin an incisive assessment of the relevance for the future of the social frame in which we live. Is it viable in the context of development? Does it belong to a past epoch? Are we guilty of living by values which are no longer valid? Crises of this kind have engulfed past civilization. Is our civilization on the edge of some such catastrophe? These are questions which are very relevant and interesting, but in this paper I am forced to confine myself to some of the important factors and forces of the social change in India.

Let me first of all take up the problem of educational adaptations in a changing society.

Educational Adaptations in a Changing Society.

Under the main theme of "Educational Adaptations in a Changing Society" the Conference which met in two sessions at Capetown and Johnannesburg in July 1934, was brought face to face with the general problem of the function of education in modern society—whether in underdeveloped or developed countries. The problem lies in the fact that we have to maintain a balance between the seemingly contradictory demands on education.

1. On the one hand, one of the main functions of education is to transmit the accumulated experience of the race from one generation to the other. Concretely it means the transmission of the culture of the particular group into which the child is born. In other words, education, unconsciously as well as consciously, seeks to reproduce the type ... The conscious or unconscious motive behind education is to mould the individual into a type so that he will be a member of the group and fit as perfectly as possible into the ways of that group.

2. On the other hand, education must also provide for growth beyond the type. That is it must allow scope for

individuality and initiative, otherwise education is not worthy of the name. What is more, it must actively foster individuality. If this aspect be denied or starved, how can education ever claim to make any contribution towards progress or development? (E.G. Malherbe (Ed) Educational Adaptations in a Changing Society, Juta & Co. Ltd., Capetown. 1937. pages IV and V.)

Both functions are equally necessary. But in a changing society there seems to be a greater need for the latter type of education. There is now a growing feeling that by overemphasising the former to the neglect of the latter, the younger generation will be subjected to a double handicap—It will make technological adaptation difficult in the context of industrial development. Moreover, the psychological adaptation in the field of human relationships will be the greatest handicap. "The fact that the world is fast becoming a neighbourhood owing to the rapid developments in the means of transport and communication demands mental attitudes which are capable of transcending the more limited needs of the smaller group. Mental attitudes which are the result of fostering prejudice of group against group and of nation against nation have become a threat to the very existence of modern civilization and must make place for others." (Ibid. P.V).

It is definite that in the changed circumstances we do not want to consider education as solely a conserver of the status quo. Now the question before us is whether we should consider education as an agent of social change (or social reform) Or consider it as a co-operative force in bringing about growth, development and social change.

Sociologists and educationists would like to consider education as a co-operative force and not as an agent of social reform and change. If we want education to act as an agent of social reform or social change, the educational institutions will become battle grounds of conflicting interest groups. The following quotation is very illustrative. "If one admits the possibility of obtaining through the school social reforms that one likes, one must also admit the possibility of obtaining social reforms that one dislikes. What happens will depend on the popularity of various reformers, the plausibility of their causes and the pressures they are able to exert on the educational system" (Hutchins, 1953. 52-53). If we consider education as an instrument of social change, then it seems that education must determine the rate and direction of change—change in the economic, occupational and technical fields. This may not be possible for education, as other forces are more pervasive.

In the light of the objectives of education mentioned earlier, an attempt is made to examine the effectiveness of the present day education in India in preparing the youth for the activities of living. For this purpose, I would like to pose some questions and then try to answer them.

1. Are we developing our educational institutions as part of our society?
2. Are we training our students to involve themselves in the process of national development?
3. Are we helping our students to develop the right human values—dignity of labour, hard work, a sense of dedication and a total commitment for involvement?
4. Does knowledge necessarily lead to action?
5. Does education help us to think that 'this world is the theatre for the glory of God'?—Calvin.

6. Does education help us to develop an "enquiring mind"?
7. Does education help to create new awareness in us,—a concern for others?

Education Today

Reports after reports, statements after statements, Commissions after Commissions, investigations after investigations, emphasised the dysfunctional aspect of our present day educational system.

In the editorial of the Journal 'Religion and Society' Vol. XX. No. 2 June 1973) it was remarked: "Till the beginning of the modern age, the emphasis was predominantly literary and scholastic, as training for the professions happened in families, communities and guilds of the practictioners of these professions. The case of scholars and masters outside these traditional circles, was the exception that proved the rule. Education has a long history of association with privilege: privilege was what made education possible and education served to preserve privilege. As long as social hierarchies were seen as given orders, as ordained of God or fate, this approach to education was largely unchallenged, and the only social purpose expected of it was that it serve the continuance of these orders." It continued: "With noble exceptions—small and great—the typical product of this education was the bureaucrat and the 'Babu'—a new caste drawn from all castes, whose badge of distinction was book learning and a taboo on soiling one's hands in earning one's living or maintaining one's life style and consequently the ability to hire other men to do this for one... Therefore personal advancement has continued to be the main object of the pursuit of education."

Even though the educated Bureaucrat and the teachers talk about modernization, revolution, revamping the educational system, reforming the examination system, they act as the most conservative element in our society. Keeping in view the traditions of our society, I would prefer to call them '*UNBRUSHABLES*'.

The conflicts and dilemmas in our education pose agonising personal problems for gifted youngsters and baffling policy problems for the government. At the end of the struggle for the right paper qualification to practice their profession, they feel cut off from their own people. Their outlook on life, their aspirations, and work style seem alien even to themselves. As Nehru confessed with great sadness this deep psychological conflict makes them feel strangers in their own land. Worse still, since the professional in India has to deal with the problems of the masses who are still enmeshed in the customs and concepts inherited from the past, he has little 'feel' for the people whose lives he hopes to improve.

Foremost among the critics of the present educational system is the Brazilian educator, Paulo Freire, author of 'Pedagogy of the Oppressed, He rejects the very foundation of our educational enterprise. Educational enterprise, observes Freire, is always a device for the imposition of the ideas of the ruling class on the masses. It is the Pedagogy of the oppressor. It functions as an instrument which is used to facilitate the integration of the young into the logic of the present system and bring about conformity to it. Conformity to the systems being the goal, perhaps, unannounced, little opportunity is provided for actual communication. The teacher–student relationship in the present system is a good instance to prove this failure. Here, instead of communication, the teacher issues communiques and makes deposits, which students patiently receive, memorize and repeat. Freire has charac-

terized this method as 'the banking concept of education', in which the scope of action allowed to the students extends only as far as receiving, filling, and storing the deposits. They do, it is true, have the opportunity "to become collectors or cataloguers of the things they store."

Attitudes and practices which prevail in a 'banking' education, are the following :

1. The teacher teaches and the students are taught.
2. The teacher knows everything and the students know nothing.
3. The teacher thinks and the students are thought about.
4. The teacher talks and the students listen meekly.
5. The teacher disciplines and the students are disciplined.
6. The teacher chooses and enforces his choice, and the students comply.
7. The teacher acts and the students have the illusion of acting through the action of the teacher.
8. The teacher chooses the programme content and the students adapt to it.
9. The teacher confuses the authority of knowledge with his own professional authority, which he sets in opposition to the freedom of the students.
10. The teacher is the subject of the learning process, while the pupils are more objects. (Pedagogy of the Oppressed. page 59).

Freire very rightly points out that today education is invariably an instrument for the maintenance of *status quo* and a means for imposing the values and interests of the dominant class.

Gunnar Myrdal points out that the education available in India is not only insufficient but there is, in fact, mis-education, dictated by vested interests (Asian Drama 1649), which prevent an egalitarian approach. Therefore he holds that quantitative expansion of the existing facilities does not get to the roots of the evil. He therefore advocates major changes in the educational system involving an integrated effort to stimulate basic and adult education at the same time : the school should be used as a place of learning not only for the children but for the whole village community. Restrictions on secondary and tertiary education are considered as necessary in favour of primary education and functional literacy programmes among adults. (1816). One of the main tasks is to create a disciplined learning attitude which keep the percentage of drop-outs, repeaters, 'educational wastage' small, and prevents a relapse into illiteracy (1725).

Myrdal states that his criticism of the Indian educational system and the changes he proposes are based on the criteria of the 'Modernization — Ideals' which he unfolds as his value premises in all the three volumes of his Asian Drama. (1536). Myrdal unfolds many reasonable arguments to prove that equalization is a necessity for an effective concept of economic growth (745). He states that to fight for egalitarianism, for dignity of manual labour and the like, it needs a sense of sacrifice and idealism, which are clearly values with religious overtones. And this willingness to sacrifice is not only needed from the privileged class, but even at the grass-roots, wherever a person gets the opportunity of education and has to make the decision whether to use it for short-term egoistic advantage or for serving the community and the society as a whole.

The literacy rate in the male population in 1971 was 39.49 and in the female population 18.47 per cent. There is no

reason to exult over the rise in the literacy a rate in the country during the last two decades from a little over 16 percent to 30 percent today. But the reality is that today there are more people in India who cannot read or write than there were 20 years ago. In 1951 there were about 300 million illiterates, but now there are 350 million of them. There are about 159 million illiterates out of 230 million people in the age group 11–44 who form the country's working force in both industry and agriculture. The presence of a large majority of illiterates may suit certain vested interests, but in the long run such backwardness of the nation may prove dangerous to competent democracy. The benefits of liberty and independence are not shared by a large section of the people. An illiterate is at the mercy of others. Political social, economic – industrial and agricultural development – all this is vitally linked to literacy. Several of the countries in the West have achieved cent per cent literacy in the course of two decades by giving top priority to literacy programmes. In India in spite of our 25 years of freedom we could not achieve much. About 180 million adults have to be made literate, women's literacy is only half that of men's. If we have to progress quickly we have to make determined efforts to improve literacy in our country. W. S. Woytinsky author of 'India, The Awakening Giant', makes a useful suggestion in this regard : "We heard complaints about mass unemployment among young graduates of the universities, but we could get no answer to our question : Why cannot a million of them be mobilised for rural teaching?"

We often assume that education is a powerful instrument of engendering social change. In an ideal sense, this may be true, provided we grant certain other premises. But our idealistic fervour should not blind us to the many limitations and deficiencies of the existing educational system. In India, educational institutions — especially at the school level — are run more like commercial enterprises. Teaching at the school level, particularly in the rural areas, offer few challenges and fewer incentives to attract the best talents. Many studies of the prestige grading of occupations in India have revealed that the school teacher has a rather low status with emphasis on examination of an outmoded type. It is not surprising if students regard education as a means toward a certificate which enables them to get a job. In a setting such as this, it is incorrect to exaggerate the role of education as an agent of social change.

Even if we set aside the above mentioned consideration, the role of education engendering social change is based on yet another assumption that what is taught in the schools will necessarily be reflected in the behaviour of the students. This presupposes a necessary connection between knowledge and action which is only rarely true. Knowledge leads to appropriate action not when it is passively acquired but only when it is internalized and internalization is different from the mere process of learning. Internalization, however, marks only the first step towards social change. The next important step is institutionalization which takes place when the knowledge in question is internalized by a sufficiently large number of individuals. Internalization takes place only when the idea in question is believed to be good or desirable. Internalization of an idea though it is held only by small minority, may lead to institutionalization provided the minority is powerful or influential or prestigious enough to prevail upon the majority. As far as India is concerned the question is how far the existing educational system with all its

limitations is capable of bringing this about is exceedingly doubtful. Let us for instance consider — Population education and its relation to the desired goal of small family norm. In our population education scheme, the appeal is addressed as much to the larger goal of national welfare, as to the narrower goal of personal interest, to expect the students to act in accordance with what has been doled out to them in the schools is to presuppose a degree of social consciousness which even people in position of leadership seem to be lacking. This point is brought out by J.B. Kripalani in his article on 'New and Old Values' in the Illustrated Weekly (August 19, 1973. page 39). To practice what is being preached is not merely a matter of intellectual conviction, but involves a total commitment. In the context of the existing social, economic and political conditions in India, an appeal to the national good is not likely to produce this kind of a commitment.

Suggestions:

1. Freire proposes a "problem-posing education" whose objective will be personal and social liberation. In problem-posing education students are no longer 'docile listeners' but 'critical co-investigators in dialogue with the teacher'. 'The teacher presents the material to the students for their consideration, but reconsiders his earlier conclusion as the students express their own. The role of the problem-posing educator is to create, together with the students, the conditions under which knowledge at the level of the doxa is superseded by true knowledge, at the level of the logos'. Freire demonstrated this problem-posing education programme in Brazil and Chile with great success. In those programmes. people participated in one another's education and made it a common pursuit on the basis of critical thinking and dialogue—the core of problem solving education. There is no place for *ivory tower* scholars, far removed from the hard realities of life in his scheme. Neither can we have men who style themselves as mere activists. Freire holds that to be human is to exercise these two functions at once and that even the common people are capable of this exercise.

2. Maintain a balance between supply and demand. For this purpose restriction of admission at the college level is very essential even though all are entitled to a higher education as citizens of democracy.

3. Merit should be a main criterion in the selection.

4. The students should be helped to develop the right human values—dignity of labour, hard work, a sense of dedication and a total commitment for involvement.

5. Teachers should be given facilities and opportunities to keep abreast with developments in their field.

6. Engineering colleges and technical institutions should make a discovery-oriented project a compulsory requirement for the degree or diploma. Such a compulsory requirement only will promote creativity, self-reliance, resourcefulness and leadership among our engineers.

Planned Social Change:

S. L. Parmar in his paper Education for Development (Religion & Society. Vol. XX. No. 2. June 1973) writes "Looking at India's experience in planned development over the last two decades, it is evident that most of our shortcomings and setbacks are due to the lack of clear perspective or development ideology. Social and Economic changes such as are envisaged in our socialist affirmations cannot be brought about by techno-economic factors alone. Resources, techniques, programmes

and projects do not operate in a vacuum but in a given social framework. Our framework must be built on socialist values and be sustained by institutions that concretise them. But our social frame work, by and large, continues to be dominated by feudal and colonial values and institutions, a quarter century of political freedom notwithstanding. That is why we have economic growth with increasing inequality; an expanding public sector with growing tendencies of State capitalism; industrial progress with increasing unemployment and industrial unrest; a 'green revolution' with rising prices and rural discontent; and so on...

While the list of our social and economic achievements is impressive, the list of contradictions seems to increase faster. It has taken our planners and administrators a long time to recognise that planning must first of all benefit the poor in a poor country. So far we have planned in aggregative terms, hoping that fruits of growth would automatically trickle down to the weaker sections of society. We overlooked the pockets of affluence and politico-economic power in our 'poor' country and failed to realise that given half a chance, they would usurp the lion's share of the gains of development. They have done precisely this and in the process, the hold of feudo-colonial values and institutions has not weakened. Planning without a clear ideology has become planning for the privileged. We may have achieved growth but not development." (Page 21)

Starting from the assumption that development requires an ideology, it follows that education for development should help in promoting values, attitudes, behaviour patterns and mind-set that such an ideology demands.

From his studies of the development problems in underdeveloped countries, Gunnar Myrdal has reached the conclusion that there is not a conflict between the goals of growth and social justice. Instead radical egalitarian reforms are a necessary condition for sustained growth and development. He points out the reasons for this conclusion. (Economic Times. Annual issue. 1972)

1. First large masses of people in underdeveloped countries suffer from malnutrition, lack of elementary health and educational facilities extremely bad housing and sanitation. This impairs their preparedness and ability to work intensively; it holds down production.

2. Social inequality is tied to economic inequality in mutual relationship, each being both cause and effect of the other. As undoubtedly, social inequality by decreasing mobility and free competition in the widest sense of the term is quite generally detrimental to development, it is clear that also through this relationship greater economic equality would lead to higher productivity.

3. The usual argument that economic inequality by resulting in enriching an upper class being able to save more of their higher incomes has even less relevance in most underdeveloped countries where landlords and other rich people are known to squander their incomes in conspicuous consumption and investments and sometimes in capital flights. Because of extremen deficiencies in the assessment and collection of direct taxes, inequality of incomes and wealth cannot contribute much to public savings either.

4. All underdeveloped countries have to strive for national consolidation. Great, and particularly, growing inequality is a serious obstacle to these strivings.

5. The experience that in the most advanced welfare states, with their much higher levels of living and already accom-

plished greater equality, continued social reforms have been productive, should a *fortiori* apply even more to these very poor and inegalitarian countries.

Myrdal says "we face a strange paradox in regard to the quest for greater equality in underdeveloped countries. On the one hand, the policy declarations in all underdeveloped countries stress the need for greater equality and in particular, for raising the levels of living of the masses. This is everywhere a prominently set goal for their planning. On the other hand economic as well as social inequality is not only very gross and harsh in most of these countries but seems generally to be increasing. Policy measures declared to be taken in the interest of the poor are mostly either not implemented or they turn out in practice to favour the not-so-poor. Whatever development there has been, has mostly enriched only the top strata, the urban 'middle class' of 'educated' and what in India is called the 'rural elite' leaving the swelling masses in the rural and urban slums about where they were." The Economic Times. Annual 1972. page 43)

Gunnar Myrdal in his speech on November 15th 1971 at the Carleton University-Sponsored Conference (In Ottawa)—Asia in the 70's—Problems and Prospects—mentioned that most reforms in the underdeveloped nations of Asia have increased rather than diminished inequality. He warned that the prospects for improvements in this regard are bad unless developed nations stop trying to embellish their own positions when granting aid to underdeveloped countries. The way in which developed nations approach under-developed nations 'simply builds up obstacles towards their real development and is as worthless in its way as the colonial theory was in its days. Among his other observations were:

1. Between a quarter and third of the U.S. foreign aid simply translates as military involvement in foreign countries. The figures we get are twisted.

2. The general euphoria about the Green Revolution has given Asian governments the excuse to ignore the land reforms question. High yield grains merely increase inequality making the rich entrepreneur richer.

3. The richest countries have always allied themselves with the privileged groups in the poor nations. They had to do this if they wanted to do business there.

4. Educational reforms in developing nations are a sham supported by false figures. Enrolment figures do not take into account the drop out rate. In fact only one in six students completes his schooling at any given level in most countries. (Published in Deccan Herald, Bangalore, under the Caption: Cure worse than Disease on 16-11-71.)

Even though we profess that the State is dedicated to removing inequality wherever it is found in fact it is trying to perpetuate it. One clear example is that of giving titles to the selected few at the time of Republic Day celebrations.

Social Legislation and Social Change

It is said that if we take into consideration the total number of Acts passed under the caption social legislation, India ranks first, but from the point of view of implementation India comes last.

Man is a valuing animal and in every social order he seeks so to modify behaviour and belief as to achieve his values. A dramatic example in India was the Untouchability Offences Act, redefining the roles of high caste people and the untouchables, the citizen role, the worker role, the customer role and secondarily

the whole complex of roles and relationships linked with or affected by these. All legislation may be seen in this light.

It is unfortunate that even after 25 years of independence, after four Five-Year Plans and despite all the Harijan welfare Programmes, including Article 17 of the Constitution abolishing untouchability and the passing of the Untouchability Offences Act, the Harijans are still India's oppressed. They are undoubtedly the most persecuted people in our country. Almost every other day, newspapers carry reports about the members of this community being exposed to all forms of humiliation and violence. Assaults on individual, often ending in the death of the victims and attacks on Harijan colonies are frequent. The Elayaperumal Committee appointed by the Government of India 1965, in its voluminous report of 1969 devoted an entire chapter to the forms of untouchability prevalent in India. It listed specific instances observed or reported from each State. The two day debate in the Maharashtra Assembly on June 14 and 15, 1972 on the harassment of neo-Buddhists and Harijans in the various parts of the State and the debate in the Lok Sabha on July 30th 1973 on the atrocities perpetrated on Harijans in Bihar, have all brought into focus the fact that this social evil is still firmly embedded in the country.

Mrs. Sathyavani Muthu, the Minister for Harijan welfare in Tamilnadu confessed very recently that despite all the Harijan welfare Schemes, the overall economic conditions of the Harijans is worse today. It is not only unsatisfactory but quite deplorable. Socially, it is very much worse despite the Untouchability Act. Indeed there is absolutely no change at all in the rural areas. Harijans still suffer the stigma of untouchability and caste Hindus continue treating them badly.

The intelligensia in our country have failed miserably in their duty to provide positive leadership in the direction of eradication of untouchability. The fortunate educated have not raised their voices against the evils of caste, but they have themselves practised it. It is beyond one's comprehension how an intelligent, educated, responsible person can say that he belongs to one particular caste and work for it. The fact is that those who have to lead the masses have themselves kept aloof because of the fear of loosing their popularity. Many people advise others to keep their mouths closed on this question if they want to be popular. It is really a pity to notice that the Harijan leaders themselves and the educated among them, do not want the existing distinctions to go. Many an educated young man does not want to go back to his village and work for the upliftment of his brothers and sisters. The precious Bill of Rights contained in Article 17 of the Constitution and the Untouchability Offences Act of 1955 have not been successful in stamping out this evil. The socio-economic emancipation of scheduled castes cannot be brought about by governmental action alone, nor by laws, but by the co-operation of the intelligensia, public spirited persons, political parties and religious leaders.

I very strongly feel that labels such as Harijan, scheduled castes etc. should go and economic and social backwardness must be the criterion for giving help to them, separate hostels, colonies etc. for the Harijans must also go. If government is giving financial help to the students of this backward community, some work should be made compulsory to them. That may enhance their prestige.

Caste and Social Change.

Inspite of the vast possibilities of change, social mobility was only slight in our

country. In some respects there was substantial circulation of the elite, the caste as a whole was not open enough for change in status. The process of change in the caste system according to Srinivas started with Sanskritization. While Sanskritization was the process of change among the lower castes, the upper castes have taken to Westernization. Both Sanskritization and Westernization according to Srinivas reflected the contemporary as well as historical forces to change in stratification. Whereas Westernization was an urban and upper-middle class and caste phenomenon, Sanskritization involved participation of the lower castes and had a widespread village level manifestations. But as soon as alternative avenues other than Sanskritization could be possible for the lower castes after independence, they renounced resorting to Sanskritization in favour of political and cultural mobilization of their own ranks, in the framework of their own sub-cultural ideology. The formation of caste associations, caste federations and even caste based political parties explicate this process. (Srinivas 1964 & 1968; Rudolph & Rudolph 1967; M.S.A. Rao 1968; Hardgrave Jr 1967; R. Fox 1967; Kothari 1970). Following the changes in the mobility patterns in the caste system from Sanskritization—Westernization to increased politicalization and competition for access to economic and political resources by various strata, new consequences with regard to stratification have come into existence. (Yogendra Singh 1972). Important among these is the coming into prominence and power of the 'dominant castes' of the middle rank in Northern India and of the middle or lower ranks in the Peninsular India. in place of the traditionally influential upper castes. (Srinivas 1962; Kothari 1970; Paul Brass 1965). Status mobility of castes has been reported for South India by Srinivas and Beteille (Srinivas 1968; Beteille 1966). V.K.R.V. Rao points out another trend in contemporary society. The most eloquent example of this way to a high social status is seen in our State with E.V.R. Naicker as the initiator and the powerful D.K.; D M.K. and allied movements as a consequence. (Rao 1972). Thus the decline in the power of the older established castes and the emergence of the new powerful groups from the middle and lower ranks of the caste hierarchy is one of the most significant developments in the changing pattern of stratification in the post-independent India.

In order to understand the implications of the changing patterns of stratification in India on the openness or closure of the system it may be necessary to introduce the perspective of the ecological scale in terms of the village, the district or region, the State and the nation on the one hand and that of the types of strata, such as caste and class rankings, occupational and professional groupings and elites on the other. As one moves from the local to regional to the national scale of the functioning of the status categories as components of the system of stratification, the openness of the system increasingly declines and the status summation tends to operate. The ascriptive and monopolistic tendencies have not only entrenched themselves at the level of the business elites in India for which there is considerable evidence (Shoji I to 1966; B. B. Misra 1958; R.K. Hazari 1966;), the same pattern is also visible at the level of the political, cultural and professional elites. A peculiar feature of this summation of status attributes at the national level is that these elites continue to operate as interest groups without having alienated themselves from the caste and sub-caste linkages. On the contrary, they are often more entrenched that dissociated from caste and kinship net works, which work as support bases, especially for political elites both at the national and regional levels. (Yogendra Singh 1972).

Indeed it is found that the social base for status allocation and its asymmetry in our social structure is still the caste, but as new changes in other systems of the society, such as legislation economy, technology and political ideologies etc. take place the tendency for the emergence of new economic and political interest groups which cut across the caste boundaries increases. These interest groups emerge from diverse caste structures but have a tendency not to last long. Once the basis for interest group mobilisation is gone, or its goal has been achieved, these relapse back into the caste structure which alone serves as a permanent social base for interaction. (Yogendra Singh 1970). A good illustration is the emergence of the SONS OF THE SOIL theme at different places in India. This movement is as a result of the increasing unemployment problem. This movement is not on caste lines. It cuts across caste lines and advocates jobs for local people. But once the employment situation improves this movement will also become lifeless.

Casteism, Communalism, Regionalism and Linguism

These are days of national reconstruction. In the political sphere we aim at three main objectives: a sound democratic form of government based on healthy social foundations; a secular state which will not align itself with any particular religion or community; and a strong and united nation which will integrate emotionally our people who belonged to different provincial, linguistic and cultural groupings. In the social sphere we are seeking for the emancipation of the masses from the age old oppressive and dehumanizing social structures and for the development of new social patterns of healthy community living suited for the new era. Our efforts in this directions are very much hindered by the growing aggressiveness of casteism, communalism, regionalism and linguism. These destructive forces weaken our sense of nationhood and make it difficult for our State to be really secular and our government to be truly democratic.

The growing aggressiveness of these divisive forces is quite obvious. Quite frequently we hear about communal and linguistic agitations and even riots. More disturbing than these, is the corroding nature of communalism, casteism and linguism. These destructive forces have made their way into our public administration, private and public institutions and organizations and even our educational institutions. Much of the corruption and red-tapism that are prevalent in our public administration and institutions could be traced to the narrow, caste, communal and linguistic interests of the persons in authority.

In such a situation the leaders, parents and teachers have a great role to play in developing in the young, healthy social attitudes which will help them to rise above narrow caste, communal, regional and linguistic considerations and devote their life and work for the betterment of the nation.

Family and Social Change.

The Government of India has put through a number of changes in the law governing family life. The changes in many cases are permissive and where they are mandatory they are not always rigorously enforced. The change in family life is consequently slow, uneven as between different regions and segments of the population and has resulted as much from changes in the objective conditions of life as from changes in law. There are no less than 32 major and minor pieces of central legislation between 1850 and 1962 which relate to the institution of marriage, inheri-

tance and adoption. Hitherto women had no independent existence, but these legislations sought to emancipate women from the onesided nature of law. The constitution also guarantees equality to woman. She is now considered as a full legal person who can work outside the four walls of the house, can have economic independence and equality, can own and dispose of property, enter into legal contracts and vote and be elected to any political office in the same way as a man can. Marriage has been shifted from a coercive to a voluntary basis, from a sacrament to a civil contract. Young people are now having the right to choose their partners themselves and if they find adjustment impossible they need not continue the marriage.

The Gains of Learning Act (1930) emphasized the individual as an entity and as separate from the joint family. More recently and somewhat indirectly, the publicity of the family planning movement has been emphasizing the nuclear family as a unit by pleading for the small family consisting of the married couple and their two children. A search for an effective means of limiting population growth has also led the government and the legislature to the adoption of the Termination of Pregnancies Act. In the long run the adoption of this measure as also the other measures of family planning is likely to influence norms of pre-marital sex behaviour and they may modify the norms of family living as well. (Gore 1972).

With increasing industrialization, urbanization and secularization and with all the legislation passed, it is difficult to say how much the Indian family has actually changed. Undoubtedly the Indian woman has much more educational and economic opportunity than she had in the recent past. She exercises her vote as much as the Indian man does, sometimes even more conscientiously. Many women have entered public life. But it is equally true that the change is uneven; it is probably greater among the urban, white collar groups than in the rural or working class populations. (Gore 1972).

The Deputy Registrar General told us recently that the age at marriage for both men and women has not changed at all between 1881 and 1971; further, bridegrooms do not travel any further for their marriage than they did almost a hundred years ago. These are facts which we cannot lightly dismiss if our interest is in the understanding of social change. Marriage, family, kinship, the relations between the sexes and between the generations—the facts about these tell us at least as much about a society as do the analysis of political events. And they tell us that the changes since independence in our society taken as a whole have not been spectacular. (Beteille. 1972).

Gore remarks that it would be difficult to assert that the status of women and the equality of relationships in the family have not undergone a change in the Indian family. The process of change has been characteristic of India, despite change and in the midst of change there is an emphasis on continuity.

Since more than four-fifths of the population even today are in the grip of poverty and illiteracy, it is little wonder that the authoritarian social norms prevail, particularly in the rural areas. The old practices of child rearing prevail in the higher status groups. These practices are reinforced by the utter failure of primary education in the rural areas and in the urban slums. The new generation in these groups conform to the norms instilled in them by their parents and enforced on them by the higher status groups. Thus the ideology, social structure and persona-

lity structure all reinforce each other and perpetuate the autocratic ethos in the nation. (Kuppuswamy 1972).

Family Planning and Social Change.

Family planning is not merely an idea of controlling births, but planning for social change. *It cannot succeed until it is* co-ordinated with other areas of change. No one can think of a programme of family planning in a vacuum. Fertility is conditioned by a number of socio-cultural *factors and a change in these factors will* be essential; only then the family planning scheme will be a success.

The preponderance of government's role in family planning in the context of a vast number of illiterates and poor people, is not the best way to achieve maximum results. Limiting the number of children is a personal choice and no one would like to be told by others, far less by the government, about it. A government is associated with two major matters: one is authority and the other politics. As long as family planning is by voluntary decision of the couples, the role of the government could be played by being supportive. The image of authority with which people associate government is not necessary to be invoked, and instead of doing what it should, it creates resistance. People suspect politics behind family planning and there are people who see family planning not as a means of increasing individual or family happiness, but as a deliberate way of reducing representation in parliament of certain categories of people. It is here that the role of voluntary welfare agencies become extremely important and should be given a positive role. Better results could be achieved by involving the private medical practitioners in the clinical methods of contraception and while the government could subsidise the payment of fees to private practitioners the people who accept contraception could be required to make a token payment. Anything that is made available free is suspect. Let this payment be not obligatory for those who cannot pay even that too, but let others pay a sum of money, however small it may be.

Community Development Programmes and Social Change.

No amount of planning by government will succeed in improving the social and economic life of the masses, unless, such basic qualities of self-reliance, self-help, a commitment to national welfare etc. are inculcated in them. Legislation as an instrument to curb social evils may not prove very effective so long as people do not bring about a change in their values, attitudes and way of thinking.

The success of our Five Year Plans depends largely on the extent of co-operation and people's participation in the economic and social development programmes. It is precisely for this reason that the Community development programme was launched on October 2nd 1953. It is a programme of aided self-help to be planned and implemented by the people themselves, the government only offering technical and financial assistance.

In the course of the Second Five Year Plan, Panchayat Raj was introduced in some of the States as provided in the Directive Principles of State Policy of our Constitution. Blocks came to be treated as units of planning and development. The aim of the Panchayat Raj is to delegate some of the powers exercised by the state governments thus giving to the people a bigger voice in planning and local development schemes. The Panchayats enjoy legislative, executive powers as laid down in the relevant law of the State. Panchayat Raj would strengthen the root of democracy in the country by making people responsible for the pace of their local economic and social development and

also to create sound local leadership which is essential in democracy.

The community development programmes and the Panchayat Raj schemes did not bring about the desired change among the villagers due to a number of reasons. These projects were running counter to the local social norms and social hierarchy. Orientation of the people to kin and caste rather than to identifiable larger interests is a major obstacle. Evolving a community consciousness is an extremely difficult task. Religious beliefs, numerous taboos and injunctions etc. came in the way of acceptance of certain programmes.

The failure of the community development programme illustrates that any new programme to be socially acceptable must be followed by large scale propaganda and demonstration so that it leads to adoption and thus affects the social structure as well as the personality structure. With eighty per cent of the people living in villages and more than seventy percent illiterates, it is little wonder that the project was unable to make any significant headway during the last twenty years.

Conclusion.

Modernity has not solved the inner conflict of Tradition in India. We are torn between the old and the new values and goals—the new values and goals spelt out by our constitution and the old traditional values and goals of authoritarianism, hierarchy and social inequality.

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Summary of Discussion

In the discussion of the paper at the Seminar held in the Seminar room of the Institute on Thursday, September 27th, the Chairman Dr. K. K. Pillay, Head of the Institute of Traditional Cultures, University of Madras, in his introductory remarks stated that the subject had drawn a great deal of attention and emphasised stability as a special characteristic of Indian culture which has remained essentially unchanging and traditional. Referring to the sanskritization mentioned in the paper he commented on the fact that recently desanskritization had become a significant tendency. Yet another phenomenon that merited attention was the growth of regional consciousness which might find itself at cross purposes with a sense of national identity.

The presentation surveyed social change in relation to a number of areas, constitutional provisions, education and illiteracy, planned development and Harijan welfare, agrarian reforms, family and social structure. The constitution with its democratic assumptions and radical objectives seeks to influence a social order which is fundamentally hierarchical. The intention of the framers of the Constitution was to provide an institutional base for a rapid transformation of India society into one with an equalitarian and progressive ideology. The years after independence have not evidenced much progress in the achievement of these goals. Referring to the role of education as an agent for social change, the prevailing state of affairs could best be described

as a state of uneasy balance between seemingly contradictory demands and the increasing inadequacy of the present system in meeting the needs of the individual growth and national development. If education is to be an effective instrument of social change, the functions of education are to be the transmission of knowledge and individual development. In a changing society there is greater need for the latter. Any evaluation of the educational process has to keep under review whether the system is relevant to social need. Does it involve students in national development? Does the system instil values which emphasise the dignity of labour, dedication and commitment instead of a narrow self interest and a superiority complex? Does it create an enquiring mind, a new awareness and a concern for others? In actual practice there has been a rise in the number of illiterates and the drop-out rate in schools is very high. In effect, the present educational system has increased the distance between the privileged and disadvantaged groups. Education, after independence, has not played the vital role envisaged for it in the development process. The other areas where change is very slow are; agrarian structure, the conditions of Harijans, and family structure in rural areas. There has been no lack of enabling legislation as India stands first in the number of social legislative measures passed, but there are serious defects in implementation of such laws. A special characteristic in the continuity maintained during the process of change.

In the general discussion attention was called to the assumption that social change is part of the general movement of progress. The values implicit in the Constitution were not the spontaneous expression of the general will but were more in the nature of goals. These are to be assessed from the point of view of programmes to be planned towards achievement of these goals. The role of the individual in engineering changes is as great in importance as that of the legislative and executive measures. A historical perspective was essential for understanding the interaction between traditional culture and the progress oriented modern framework.

Some of the factors which were considered obstructive to change were elaborated; the ingrained conservatism of religious leaders and the unwillingness of the educated minority to put into practice progressive ideas. The much stressed idea of 'secularisation' was not the unifying force that it should have been.

Queries were raised about the basis for social change and whether scales have been devised for measurement of the extent and rate of change. From the academic aspect the divisions between Socialist and Social Anthropologist, Sociology and social work were not clearly defined.

Changes like urbanization and industrialisation brought in their train certain concomitant undesirable effects such as the growth of slums and the disruption of patterns of community living. The present tendency seems to be the isolation of the rural areas and people and the emergence of a powerful moneyed class.

The working out in practice of special programmes for Harijan uplift left much to be desired. The feeling was expressed that the considerable facilities provided have led to a complacent acceptance as far as the beneficiaries were concerned and not to a corresponding urge to progress. There seems to be a tendency for the educated Scheduled Castes to form a privileged group.

The analysis in the paper and the discussion presented a contrast between the

intellectual acceptance of the need for far reaching changes in the areas of education, economic development and individual growth and the persistent pre-occupation with stability as an essential cultural trait. It was necessary for this dichotomy to be resolved, to translate into effective action the constitutional directives, and the numerous legislative sanctions into programmes which would, within a reasonable period of time, achieve progressive transformation.

ECONOMICS OF EDUCATION IN TAMIL NADU

Economics of Education

The Economics of Education as a subject is old and new. It refers to the *economic value* of education on the one hand and the *economic aspects* of educational systems on the other. Both the income earning capacity of a man's or a nation's education and the costs and efficiency questions of the school and university—were known and discussed in earlier times, by the Sangam writers in the South, by Kautilya's Arthacastra in the North and by all economists from Adam Smith and David Hume to Karl Marx. But the subject is also new because it was only in 1960 that the first article on education as an investment appeared and from then economists have become deeply involved in analysing the economics of the educational enterprise.

Education as consumption

What we are used to is the consumption aspects of education. The books we read, the discourses we listen to and the researches and studies we engage in are means of satisfying our intellectual needs, just as the food we eat, the clothes we wear and the houses we live in satisfy our physical needs. It is from the point of view of education being a component of our levels of living that we have accepted the nine items of consumption that the United Nations has laid down for all people everywhere, namely, health, food consumption and nutrition, education, employment, conditions of work, housing, social security, clothing, recreation and human freedoms. And we have further decided in the United Nations declaration of Human Rights that all people are entitled to these nine items of consumption as a right. In the case of Education, the declaration states "Every one has the right to education" We have accepted the truth that "the hunger for education is no less debasing than the hunger for food; that an illiterate is a person with an undernourished mind. In our own literature we have known this

எண்ணென்ப ஏனை எழுத்தென்ப
இவ்விரண்டும்
கண்ணென்ப வாழும் உயிர்க்கு.

That is why we embodied this right of every Indian to education in the constitution to the effect that children upto the age of 14 should be provided with free and compulsory education. And for the Fifth Plan we have framed what we call the Minimum Needs Programme to ensure that those who live at or below the poverty line should consume a minimum of food, clothing, education, health, nutrition, drinking water, housing, communications and electricity. As a consumption item, education like rice or edible oils or cloth, has its economic element and that is the concern of economics—the second aspect I referred to.

The Educational Industry

That is, Education is an industry which is like and yet not like other industries. Like any other industrial firm, it uses up material and human resources. For Tamil

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Extracts from the presidential address delivered by Dr. Malcolm S. Adiseshiah at a seminar on the Economics of Education organisud by the Hindustan Chamber of Commerce Madras on 27th and 28th of August 1973.

Nadu, the State Planning Commission computes that for 1971-72 the total expenditure on education was Rs. 148.48 crores out of our income in this State of Rs. 2,648.89 crores. That is on our education we as a State spent 5.61 percent of our income. Out of this Rs. 148.48 crores all but Rs. 22 crores is borne by the State. This means that 83 percent of our educational investment expenditure is by the State—from its receipts of taxes, cesses and levies. It is a public sector industry, with a very small part in which private resources are used. Like any other industry, its inputs, land, building materials, books, school sports and Scientific equipment and services of teachers are bought in the market but unlike any other industry its output, namely the education and training services it offers, are not sold on the market. In this State, upto and including the P. U. C. stage they are given away freely and after that stage they are subsidised in ratio of 9 : 1 by the State in relation to the beneficiants. The production period for its product or the gestation period of its investment is much longer than in any other industry. The Salem Steel Plant has a gestation period of 7 years but once erected its production period for a slab of stainless steel would be 4 to 5 weeks from the time the hot coils are introduced in its electric arc furnaces. In the education industry however the finished product will always take 7 or 10 or 14 or 18 years and in the case of research scholars even 22 years Again unlike any manufacturing industry, but like the agricultural industry it consumes a large part of its own output. But while a farmer has to set aside about 5 percent of his paddy output as seeds for the next season, the educational industry consumes itself about 50 percent of its own products. Finally while every enterprise is engaged in maximising its income and profits, minimising its costs and improving its product and services to the consumer, the educational enterprise is not engaged in any of these aims because it is not obliged to.

Productivity of Education :

Given the fact therefore that education as a consumption item is being provided in this State to all our children, that it is using up 5.61 percent of our income which we might spend on other goods and 30 percent of our annual State Government Budget which gives the State less to spend on slums or drinking water for the rural people or nutritious food for pre-school children or pregnant mothers, that it has no self inducing mechanism to check on its efficiency, the economics of education is concerned with the productivity in the school and the University. Their productivity can be measured by (a) the education mix e.g. the teacher - pupil ratio (b) the technological mix e.g. the library, the laboratory and the conventional technologies per teacher and per pupil (c) the teachers' qualifications and qualities mix (d) the curricula and content of learning mix and (e) the general standard of living of the parents. For each of these components of educational productivity the economics of education provides a formula with which the productivity in our educational institutions can be measured. Now whether we use the measure of the educational mix, the technological mix, the teacher qualities mix, the learning content mix or the systems relations between the school and the community, the productivity in our schools is low. Quantitatively over 50 percent of the students drop out of school before standard V. 20 percent repeat their classes in primary schools. 18 percent in secondary schools and 44 percent in P.U.C. and Arts and Science courses. B.A. and B.Scs. are being employed as typists and clerks by our nationalised banks for which an S.S.L.C. qualification is adequate. An

American Professor of History teaching in one of our Universities told me the other day that he is *teaching the second year* M.A. *students* here what he teaches the second year B.A. students in his University in the United States. From this aspect of the low productivity in our schools and colleges, the economics *of education tells us that we must* (a) increase the number of teachers that we employ at the primary and secondary school level and decrease the number of students we are letting into our *colleges and universities for P.U.C., B.A., & B.Sc., courses,* (b) improve the library, Laboratory and educational technologies in our institutions, (c) retrain and refresh our teachers every year and (d) continually renovate *the curricula and relate it to the world of exploding* knowledge and our society, if we are not to have more of the same useless education, if we want a change for better results – as the *State Planning Commission's Education Plan* —Towards a learning Society— tells us.

Income Earning & Education :

The other aspect of the economics of education has to do with the income earning or income generating capacity of education. *This in turn* must be seen in two *dimensions*. The *first dimension is* that education enables a person to earn more. An illiterate unskilled worker, say a gardener in one of our houses, or an agricultural worker in a Chingleput farm, earns *Rs. 2.50 day or Rs. 80 a month. When he* learns to read and write and learns a trade like wood work or carpentry or pesticide spraying, he earns 5 Rs. a day or Rs. 150 a month. Similarly if a person finishes primary school and becomes a *panchayat* union clerk *or goes through an* apprentice programme and becomes a skilled worker he earns Rs. 200. When a person finishes high school and completes his teacher *training school* certificate he becomes a secondary grade teacher and *starts earning Rs. 250 per month;* if he or she obtains a B.A. or B.Sc., degree and then acquires a B.T. diploma the salary starts at Rs. 350 a month. If a person qualifies as an M.A. or M.Sc. he earns Rs. 575 a month *as a college lecturer and if he finishes his Ph. D.,* he earns Rs. 900 per month as a Professor or research specialist. And so it goes, for an agricultural M.Sc., (Ag) who starts *Rs. 350* a month, a medical doctor at *Rs. 600 a month* and an engineer Rs. 450 a month. This income that various types and levels of education enables a student to earn in life accounts for what I would call the scale of educational preference *of parents and students. We have just* seen this scale *operating in* the stampede for admissions to our schools and colleges last month. The rush for admissions was in this descending order of preference :

(1) Medical Colleges

(2) Engineering Colleges

(3) Veterinary and Agricultural Colleges.

(4) English medium Science Departments in Colleges with a reputa*tion and*

(5) Commerce and economics depart*ments.*

The economics of *education* explains or rather analyses this scale of educational preferences in two ways. First very simply it states that other things being equal, *the difference in earning* between an illiterate worker and the *primary school* qualified clerk which is around Rs. 70 per month (Rs. 50 — Rs. 80) referred to earlier, is due to the primary education *of the clerk which* gives him the reading, writing, *filing and office arrangements* skills. In other words *differences in* earnings are due to differences in education. But the phrase other things being

equal covers a multitude of other factors which may equally well explain the differential higher earning of the clerk or the teacher or the doctor or the engineer. Part of the difference may be due to differences in intelligence, to family connections and social status of the graduating student, to the conditions of the labour market, its rigidities, its full employment or galloping unemployment situation as in our State and Country, proximity to cities and major urban educational centres like Madras, Madurai, Tiruchy and Coimbatore etc. We need to undertake detailed economic studies in this State in order to isolate and identify the returns to different types and levels of education and training and the part of the earning differential that can be attributed to education and that which must be attributed to individual ability, parental income, wealth and social class and other factors. I have seen studies and even research thesis attempted on quantifying the differential income attributable to different types and levels of education in Tamil Nadu. The main defect in these studies is that we do not have data on parental income and wealth and family connections of the students, labour market conditions and even on the income profile of the graduating student in a continuing series. One of our tasks is to organise our university and Governmental services to collect this data so that we can know how much of the income that a person earns is due to his education and how much to other factors. All that we can say on this first issue is a kind of intuitive hunch which is not economics—that education contributes to a person's income.

Private & Social Costs of returns to Education :

The second economic analysis of the scale of educational preferences of parents and students is the calculation of the private and social rates of return to a given investment or expenditure in education. The private rate of return on education is calculated by taking the net (after tax) earning differential for different age groups with different amounts of education and its percentage relation which will equate the present value of the expected differentials for the education—allowing for other factors referred to earlier which determine a part of the income differential. The social rate of return on education on the other hand is calculated by taking the private rates plus taxes paid by the educated groups and their relations to total public and private costs of education. That is we take the life-time earnings of different educated groups and calculate the discount rate at which the present costs of extra education will yield further extra earning differentials. I must however warn you that economists are not agreed that such computations of the rates of return on education can be made, for the same kind of reasons as makes difficult the relating of the income differential of a person to his educational differential that I have explained earlier. I agree with this scepticism if such calculations are used to explain why a father chooses that his son should go on to an MBBS rather than to a B.Sc., course or a parent decides that his daughter who has failed in her P.U.C. should go out and earn her living as a typist rather than study again for her P.U.C. I do not believe that either parents or students in Tamil Nadu sit down and calculate the private rate of return of a given educational expenditure and compare it with the return on investing that sum in shares or time deposits. For one thing if that were done it is only the minority of intelligent and unselfish parents who will prefer to invest in the education of their children because the future life-time earnings from that investment will accrue to the children and not

to them, whereas the future earnings on the shares or the interest on fixed deposits will be the parents'. But even more, no parent or student has the time and know-how to sit and make such rates of return calculations before deciding on choosing one course of education rather than another or whether he will go on with his studies or enter the employment or marriage markets. These decisions are made with an eye to future earnings but also on basis of a host of other considerations.

But we must make these calculations even on a rough and ready basis using our inadequate and partial data in Tamil Nadu because of the light it throws on educational policy and the guidance it can give the Government and the citizens as to the future direction of our educational system. My computation is that in Tamil Nadu the private rates of return for expenditure on a university graduate varies between 8-14 percent while the social rates of return on university education vary between 4-8 percent. I do not want to waste your time explaining the details of my computations (the equations, the life-time earning profiles, the shadow prices, the regression analysis etc). nor am I prepared to stand by these figures to the last degree. They, however, coincide with the facts of educational costs and education returns as we know them. In Tamil Nadu all direct educational costs upto PUC are borne by the Government and the parent has no costs (I do not regard the cost of feeding and clothing the student by his parents as a cost attributable to education because the parents have to feed and clothe the children whether or not they go to school or college). I have also pointed out that at all other higher levels of education, the State and parents share the costs in the ratio of 9 : 1. Hence the private costs of education are small and the discounted rate of future private earnings high while the social costs of education are high and the rate of return to society and the State of its educational expenditure is low. Further the private rates of return on education are higher than returns on other forms of investment which I place at 6 to 9 percent in Tamil Nadu. And now the very important implications of this economic analysis—the rates of return analysis—to State educational policy is this. As long as the private rates of return to education are so much higher than the social rates and as long as the private costs are so much lower than social costs of education, there will be a stampede into the educational institutions, the vacant places in our schools and colleges will never be sufficient to meet the exploding demands for admissions and the problem of continuous over-supply of educated persons in relation to the demand for them, that is the growing menace of educated unemployment (which will bring down the private rate but not as much or as fast as the social rate) will continue. My conclusion is that the Economics of Tamil Nadu education suggests that the Government of Tamil Nadu must increase the private costs of education and decrease or at least stop increasing the educational expenditure it is carrying, and that apart from subsiding the higher education of students from the poor majority in the State—on the basis of an economic test not an ethnic criterion—it should make students and parents pay their way through higher education.

Education and State income

I shall conclude with a few words on the other dimension of the income generating capacity of education. Here the economics of education brings five types of anlysis to tell us that education is not only a consumption item as explained when I started this address, it is equally and even more a factor of production which contributes to the national income

of a country, to the State income of Tamil Nadu. Here the economics of education poses 3 questions to us. Is there a relation between our educational expansion in the sixties, by 50 percent in schools, by 18 percent in literacy by 50 percent in higher education and the 30 percent growth in our State income during that period? Second, if there is, is it possible to measure this relationship? Third what is the return to the State Governments' educational investment and expenditures? On the first question, has Tamil Nadu's increasing educational expenditures and increasing educational enrolments increased her total volume of production, the total State income, over the years, three methods are used to supply the answer: (a) the inter country comparison technique which correlates enrolment ratios with State per capita income in different countries and which shows that with an accelerated educational enrolment compared to other countries, our State income growth is falling in relation to that of the developed and some developing countries; (b) the inter temporal comparison technique in which the amount spent on education in the State is compared to its physical capital formation overtime and which shows there is a very high income elasticity of demand for education in Tamil Nadu and relative to it a lower rate of capital formation; and (c) the inter industry and inter firm comparison technique under which the relation between education and training expenditures of a firm and its increased output are identified and which exists in our State but which cannot tell us anything for the State as a whole. On this first question my conclusion is that while in the fifties the expansion of education led to expansion of State income and production, today the trend of educational expansion and the increasing additional expenditures we are incurring are not increasing State production or income, at least not at a commensurate rate. On the second question as to whether we can measure the increase in Tamil Nadu production caused by the increase in the State's educational expenditure, the technique used is what is called the residual approach technique. That is the increase in the State production due to the increase in land, labour and capital is identified and subtracted and the remaining increase is attributed to education. This residual technique cannot be used by us in the State first because we do not have the data for its use and even if we had the data, the residue itself is a vague, wooly grab bag of many different factors like product mix, economics of scale, R & D etc. with education being only one element in this mysterious bag. My answer to the second question is that we cannot measure precisely the extent to which Tamil Nadu education is today promoting or retarding Tamil Nadu Production. On the third question of computing the return on Tamil Nadu's educational investment, there are two answers—The first is the calculation of the social costs and social rates of return to our education that I have already dealt with. A second way of calculating the return is to compute the number and types of skilled manpower that our education is producing—the engineers, the doctors, the nurses, the technicians, the managers, the scientists, the accountants, the agricultural researchers and extension agents, the skilled workers, the educated farmers etc. This—the producing of the highly skilled manpower—is the only real economic way of calculating the return to the State of its educational investment. And from this point of view we are not doing well at all. First according to our employment exchanges, 2,50,000 of our SSLCs, B.As., B.Scs., M.As., M.Scs., teachers, engineers and nurses turned out by our schools and colleges are unemployed. That is almost exactly the numbers who are studying in

our universities and colleges in Tamil Nadu. The State Planning Commission's Educational Plan- 'Towards a Learning Society'—tells us that against a graduates employment vacancy of 10,000 places in 1971-72, we graduated 44,000 B.As. & B.Scs. in our Universities that year. So the return to the State's educational expenditure is a negative quantity. What is worse is that about half of our unemployed are really unemployables, that is the skills they have learnt in our schools and colleges are useless, are not what the employment market wants. That is why about 50 percent of the Rs. 7 crores allocation that we are receiving from the Union Government's 5 lakh educated employment generation scheme is to be spent first to deschool and then to retrain our unemployed unemployable student graduates to make their knowledge and skills acceptable to the employment market. My conclusion on this third question is that the negative returns to Tamil Nadu investment in education today can be corrected if we relate our higher education to our manpower needs, which means selective admission to higher education institutions and if we reform our secondary and higher education curricula to make them respond to our market demand for skills.

The moral :

What then is the moral of applying the Economics to Tamil Nadu education? First I must tell you that as an economist, I have been dealing only with one aspect of education, its costs, its returns, its productivity, and its manpower results. There are other larger questions involved in education as a source of endless personal satisfaction, education as a means of combatting injustice to our scheduled castes and the poor majority, education as a means of making us happy and contented citizens of the State, the Country and the World, education as a means of learning and practising the qualities of truth, integrity, hard work, compassion and charity. These are additional to the questions involved in the economics of our educational system. Second our State government is spending a very generous amount, over 30 percent of its annual budget — on educating us and we the citizens, the parents and the students, the educated community generally, are wasting this precious investment through the high costs, low returns, poor productivity of our schools and colleges and the unemployable manpower we are turning out of them. This is background against which the State Planning Commission has presented to you the State Plan for educational regeneration in this State, entitled Toward a Learning Society. Its main elements are to provide all children and all adults in Tamil Nadu the minimum skills through the equivalent of four years schooling, involving an out of school programme for our 50 percent school drop outs and 60 percent adult illiterates; making all education which upto the age of 14 is free, work based and vocationalising secondary education; restructuring university education's curricula and making admission depend on our manpower needs, and hence selective and fee based, except for students from our poor majority who should be given special compensatory education and massive university scholarships; organising out of school and out of college education and training through correspondence courses, evening classes and Radio and T.V. instructions in schools, colleges, farms and factories, hospitals and cooperatives so that any one at work can improve his educational qualification. So we now have the diagnosis of our educational malady. We also have the cure for its return to health. What we need is the will to act. Will this Seminar spark that will for us in Tamil Nadu?

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St. Louis Institute Press, Canal Bank Road, Adyar, Madras-20
Editor : Dr. Malcolm S. Adiseshiah